OB TraceVue

INSTALLATION AND SERVICE MANUAL

OB TraceVue

Patient Monitoring

M1381-9000Y
4512 610 11101
Software revision D.01.13
Published in Germany 09.2005

PHILIPS

Notice

Philips makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Philips shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of this material.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced or translated to another language without prior written consent of Philips.

The information contained in this document is subject to change without notice.

Philips assumes no responsibility for the use or reliability of its software on equipment that is not furnished by Philips.

Federal Law (US) restricts this device to sale by or on the order of a physician.

Philips developed this system in cooperation with Massachusetts General Hospital, an affiliate of the Harvard Medical School.

Warning

Failure on the part of the responsible individual hospital or institution employing the use of this equipment to implement a satisfactory maintenance schedule may cause undue equipment failure and possible health hazards.

Trademarks

Microsoft® is a U.S. registered trademark of Microsoft Corp.

Windows®, Windows NT® and Windows 2000®are U.S. registered trademarks of Microsoft Corp.

All other product and company names mentioned may be the trademarks of their respective owners.

Acknowledgements

Automated Windows installation developed using **AutoIt**.

http://www.hiddensoft.com/AutoIt/

© Copyright 1996-2005 Koninklijke Philips Electronics N.V.
All rights reserved

Printing History

Edition	Part Number	OB **TraceVue** Release	Print Date
First Edition	M1381-9000J	A.02.00	August 1999
Second Edition	M1381-9000K	B.00.00	March 2000
Third Edition	M1381-9000L	B.01.00	September 2000
Fourth Edition	M1381-9000M	B.01.00	March 2001
Fifth Edition	M1381-9000N	C.00.00	July 2001
Sixth Edition	M1381-9000P	C.01.00	November 2001
Seventh Edition	M1381-9000Q	C.01.01	March 2002
Eighth Edition	M1381-9000R	C.01.01 (new PC hardware)	October 2002
Ninth Edition	M1381-9000S	D.00.00	April 2003
10th Edition	M1381-9000T	D.00.01	August 2003
11th Edition	M1381-9000U	D.00.02	January 2004
12th Edition	M1381-9000V	D.01.00	July 2004
13th Edition	M1381-9000W	D.01.10	August 2004
14th Edition	M1381-9000X	D.01.11	February 2005
15th Edition	M1381-9000Y	D.01.13	September 2005

Contents

1. Overview 1-1
- What is OB **TraceVue**? 1
- Who Should Read This Manual 1
- About This Manual 1
- Special Tools 2
- Service Packs 2
- Conventions in This Guide 3
- Sterilization and Cleaning 3

2. Safety 2-1
- Introduction 1
- Symbol Identification 1
- System Overview 2
  - Centralized System 2
  - Decentralized System 3
  - Uninterruptible Power Supply (UPS) 4
  - PC Power Consumption 4
- Safety Test, Verification, and Customer Acceptance Procedures 5
- Test and Inspection Matrix 6
  - Safety Test Procedures 11
  - When to Perform Test Blocks 15
- Safety and Site Preparation 16
- Safety Notes for Cabling and Installation 16
- Network Verification 16
- Electrostatic Handling Precautions 17
- Emissions and Immunity 17
  - Guidance and Manufacturer's Declaration 17
  - Recommended Separation Distances 21

3. Security 3-1
- Introduction 1
- Windows Security 2
  - Windows User Groups 2
  - Windows Users 2
  - Access Rights 3
  - Interrupting Auto Login 6
  - Log On As Windows Administrator 6
  - Modifying Access Rights 6

4. System Description 4-1
- Overview 1
- Centralized Implementation 2
- Decentralized Implementation 2
- Shipment Status 3
- Hardware 4
  - PCs/Memory 4
  - Optical Disk Drives and Medium Changers 5
  - Displays 5
- Software Components 6
  - OB **TraceVue** 6

Third Party Software 6
Wall Cabling and Faceplates 7
System Limitations 8
Power 8
PCs and Fetal Monitors 8
Serial Port Servers 9
Modems 9
Interfacing 10
Network 10
OBMS Retrieval 10
Documentation 11

5. New System Setup 5-1
Introduction 1
PC Types 1
Order in which to Perform Tasks 1
Installation Checklists 2
Tasks 13
WEB Clients 35
Starting a WEB Client 35
Real-Time WEB Client 35

6. Setup Details 6-1
Introduction 1
Installing a Client on a Cart (Mobile Client) 1
Telemetry Unit 1
Client UPS 1
Configuration 2
Moving the Cart 2
Connecting Fetal Monitors 3
M1350, M1351/53 and Avalon FM20/FM30 Monitors 3
Other Fetal Monitors 3
Network Type 3
Connecting Four Fetal Monitors 4
Connecting More than Four Fetal Monitors 4
Protocol Conversion 4
Hewlett-Packard / Agilent / Philips Fetal Monitors 5
Connecting to the Network 8
Network Connections 8
Hubs and Switches 8
Network Specifications 9
Cable Specifications 11
Cabling a LAN 13
Installing and Configuring Remote LAN Clients 16
Limitations and Prerequisites 16
Installation and Configuration 16
Patient Search Tool Network Configuration 19
Network Connection 19
Configuration 20
Installing and Setting up a Serial Port Server 22

Introduction 22
Host PC Network Settings 24
Connect Port Server 25
Port Server Network Settings 26
Install Software 28
Configure Serial Port Server 29
Configure OB **TraceVue** 34
Connect Fetal Monitors 34
Check Fetal Monitor to Bed Connection 34
Using the Serial Port Server at a Different PC 35
Replacing a Serial Port Server 36
Setting Up a Printer 41
General Printer Setup Procedures 42
Printer Connected to a PC's Parallel Port 42
Printer Connected to the Network using a HP JetDirect Card 43
Printing on WEB Client PCs 45
Setting Up Remote Connectivity 46
Setting up Remote Trace Transmission 46
Setting up Web Access Through Dial-Up Modem 46
Setting up Remote Access Support 46
Setting Up Fax Transmission 47
Installing a Modem 48
Installing Microsoft Office 2003 50
Install Software 50
Installation Tasks 52
Installing Word and Excel Templates 53
Overview 53
New Installation 55

7. Troubleshooting 7-1
Networking and System Setup Problems 1
Hardware Problems 4
Fetal Monitor Connection / Data Acquisition Problems 6
Application problems 7

8. Maintenance 8-1
Introduction 1
Recommended Maintenance 1
Caring for Optical Drives and Media 3
Caring for Optical Drives (standalone drives only) 3
Caring for Optical Disks 3
Rebooting the WEB/Terminal Server 4
Virus Protection 4
External Database Performance 5

9. System Support 9-1
Overview 1
System Overview Tool 2
Restrictions 2
Using with OB **TraceVue** Remote LAN Clients 2

Remote Support Using Terminal Services 3
Overview 3
Enabling Terminal Services Server Remote Support on a Server PC 4
Modem Setup 4
Installing Terminal Services Client 4
Using Terminal Services Client 5
Log Files 6
HP TopTools Management Software 8
HP / Compaq Insight Management Software 9
Introduction 9
Management Agents 9
HP / Compaq Insight Manager 7 SP2 9
HP Insight Diagnostics Online Edition for Windows 9

10. Configuration Verification Procedure 10-1
Customer Verification 1
Configuration Verification 1

11. Repairing/Replacing Hardware and Media 11-1
Repair Strategy 1
Hardware Defects 1
Substituting a PC 3
Software Media Defects 3
Parts Stocking 4
Fetal Monitor Connections 4
Power Supply 4
Accessories 5
Cabling 6
Modems 6
Hubs/Switches 7
Serial Port Servers 8
Tape Drives 9
Optical Drives 10
Jukebox/Autochanger 11
Displays 12
Kayak XA 14
Vectra VL400 15
Vectra VL420 16
Compaq Evo D510 17
Compaq D530 19
Compaq dc7100 20
Compaq dc7600 21
NetServer LC2000 22
Compaq ProLiant ML370 23
HP Proliant ML350 25
PC Common Parts 27
SW Media and Documentation 29
UPS Parts 30

12. Component Installation (Upgrade/repair) 12-1

Introduction 1
Software Distribution 1
PC System Board Replacement 2
Additional Memory 2
Lightpen Interface Board 2
Slot Assignment 2
M1370-66510 only 2
Connecting and Fitting 2
Soundcard and Loudspeaker 3
Installation 3
Volume 3
Network Interface (LAN) Card 4
PCI RS-232 Serial I/F Card M1380-66501 (for all PCs except dc7600) 4
Fitting the PCI RS-232 Serial Interface Card 4
Using FMSpy to Test the COM Ports 4
CD-ROM Drive 5
Primary Hard Disk Drive 5
SCSI Host Adapter 7
Host Adapter Types 7
Slot Assignment 7
SCSI BIOS 8
Secondary Hard Disk Drive (for Storage Systems) 8
Disk Installation 8
Windows Installation 10
Optical Drives 11
Optical Medium Changers (Jukeboxes) 12
Optical Disk Drive Cabinet 14
Before Installing the Optical Disk Drive Cabinet 14
Installing the Optical Disk Drive Cabinet 15
Maintenance 15
Repair 15
Backup Device (External Server Only) 16
High-End External Server (RAID) 16
Standard External Server 16
UPS 18
Overview 18
Connecting the UPS 19
UPS Driver Software 19
Disk Identification (Kayak XU only) 20

13. Renaming a PC 13-1
Changing a Server PC Name 1
Changing a Client PC Name 1
Replacement Client 2

14. Tools 14-1
Overview 1
Standard Windows Tools 1
Database Tools 2
OB **TraceVue** Tools 3

Other Tools 5
Windows Tools 6
Disk Defragmenter 6
OB **TraceVue** Tools 7
Administration Tool 7
Database Rebuild Tool 8
Offline Backup Tool 10
LogFile Viewer for OB **TraceVue** Error Logs 12
Installation Record 14
Fetal Monitor Spy (FMSpy) 14
Tools Available from the Softserver 18
Downloading from Softserver 18
DiagTools 19
GetLog 20

15. OB TraceVue Repair 15-1
What to do if 1
Which Tool? 3
Recovery Process After a Hardware Failure or System Software Failure 4
Recovery Process: Internal Server with RAID Disk Array 4
Recovery Process: Internal Server with Archiving (no RAID) 7
Recovery Process: Internal Server without Archiving 10
Recovery Process: External Database Server 11
Recovery Process: WEB/Terminal Server 11
Recovery Process: Client 12
Local Data Recovery Tool 13
Using the Local Data Recovery Tool 13
Data Recovery Process 14
Link Recovery Tool 17
When to Use the Link Recovery Tool 17
Prerequisites 17
Using the Link Recovery Tool 18
Configuration Backup (Internal Server Only) 20
Preconditions 20
Using the Configuration Backup 20
Optical Disk Test Tool 22
Requirements 22
Using the Disk Test Tool 23
Low Level Check 24
Disk Copy 24
File System Check 25
Archive File Check 26
Checking Patient Data 27
Retrieve from Optical Disk (RFO Wizard) 28
Checks Before Running the RFO Tool 29
Using the RFO Tool 29
Retrieving Data Created by OB **TraceVue** A.02.00 or Higher 30
Retrieving Data Created by OB **TraceVue** A.01.64 30
Merging Databases 30
Restoring Transfer States 31
Restoring the External Database 31

After Running the RFO Tool 31
Log File 32
Error Messages 33
HP NetRaid Assistant (LC 2000) 35
HP / Compaq Array Configuration Utility 36

16. OB TraceVue Installation 16-1
Introduction 1
When to Reinstall OB **TraceVue** 1
OB **TraceVue** Setup 2
Installing OB **TraceVue** 2
Changing OB **TraceVue** System Options 2
Running Setup 3
Install the OB **TraceVue** Software 4
System Settings 5
Configure Settings 6
Finishing Setup 9
Restoring the OB **TraceVue** Philips Password 9
Installing / Upgrading Word and Excel Templates 9
Uninstalling OB **TraceVue** 10

17. Windows 2000 Installation 17-1
Introduction 1
Requirements 1
When to Install Windows 2
Boot Floppy Disk 2
Preliminary Work 3
Additional Drivers 3
Pre-installation Checks 3
Windows 2000 New Installation 6
Final Check After Installation 8
Additional Windows Configuration and Driver Installation 8
Install OB **TraceVue** 8
Check OB **TraceVue** Configuration 8
Windows 2000 Upgrade Installation 9
Windows 2000 Configuration 10
Server Automatic Configuration 10
External Database Server Automatic Configuration 12
WEB/Terminal Server Automatic Configuration 13
Client Automatic Configuration 14
Manual Windows Configuration 15
DHCP Server Configuration 15
Terminal Services Configuration 16
Checking and Changing Drive Letters 17
Time Zone 17
Automatic Daylight Saving Changes 17
Regional Settings 18
Troubleshooting Windows 2000 Installation 19
Windows 2000 Works but Final Message Box Does Not Appear 19
Unable to Boot PC or Install Windows 2000 19

Component Installation 20
Second Network Interface Card 20
Light Pen 26
Additional RS-232 Interface Card (J02) 26
SCSI Host Adapter 26
Optical Medium Changers (Jukeboxes) 27
ELO Touchscreen 27
UPS Software 28
Hardware Configuration 29
SCSI HardDisks 29
IDE HardDisks 29
SATA HardDisks 29
Optical Disk Drives 29
Optical Medium Changers 30

18. Upgrade Overview 18-1
Introduction 1
Hardware 2
Supported PCs 2
UPS 3
Memory Requirements 4
Free Disk Space (Internal Server and External Server PC only) 7
Upgrade Types 8

19. Software Upgrades 19-1
Introduction 1
Prerequisites (All Upgrades) 1
Final Steps (All Upgrades) 2
Upgrading From A.01.64 (Windows NT 3.51) 3
Upgrading from A.02.00 (Windows NT 4) 3
Upgrading from A.02.10 or Higher (Windows NT 4) 4
Prerequisite 4
Overview 4
Preparations 4
Upgrading to Windows 2000 (Server/Standalone and External Server) 5
Upgrading the Server/Standalone Software 6
Upgrading the External Server Software 6
Upgrading the Client Software 7
Upgrading from B.01.00 (Windows 2000) 8
Remove Management Agents (LC2000 only) 8
Remove IIS (Internal and External Server PC only) 8
Upgrading Windows 2000 (all PC Types) 9
Upgrading Windows 2000 (Additional on External Server only) 9
Upgrading the Server/Standalone Software 10
Upgrading the External Server Software 11
Upgrading the Client Software 11
Upgrading from C.00.00, C.01.00, and C.01.01 12
Remove Management Agents (LC 2000 and ML370 G2/G3 only) 12
Remove IIS (Internal and External Server PC only) 12
Upgrading Windows 2000 (all PCs) 13

Upgrading the Server/Standalone Software 13
Upgrading the WEB/Terminal Server Software 15
Upgrading the External Server Software 16
Upgrading the Client Software 16
Upgrading from D.00.00 17
Upgrading Windows 2000 (all PCs) 17
Upgrading the Server/Standalone Software 18
Upgrading the WEB/Terminal Server Software 18
Upgrading the External Server Software 20
Upgrading the Client Software 20
Upgrading from D.00.01, D.00.02, D.01.00, D.01.10, and D.01.11 21
Upgrading Windows 2000 (all PCs) 21
Upgrading the Server/Standalone Software 22
Upgrading the WEB/Terminal Server Software 22
Upgrading the External Server Software 23
Upgrading the Client Software 23
Upgrading Word and Excel Templates 24
Prerequisites 24
Upgrading Customized Templates 24
Template Upgrade Procedure 25
Upgrading the Macro Code and INI File of Customized Word and Excel Templates Automatically . . . 26

20. Hardware Upgrades 20-1
Introduction 1
Prerequisites (All Upgrades) 1
Final Steps (All Upgrades) 1
Upgrading the Hardware with Software at Revision A.01.64 2
HP PowerTrust Server UPS 2
Upgrading the Hardware with Software at Revision A.02.00 2
Upgrading or Exchanging the Hardware with Software at Revision A.02.10 or Higher 3
Restrictions 3
Preparing OB **TraceVue** 3
Upgrading the Internal Server Hardware 3
External Database Server Hardware Upgrade 6

21. System Upgrades 21-1
Introduction 1
Upgrading to Storage System (Standalone Drives) 2
Upgrading To Storage System (Medium Changers) 2
Adding a Retrieve Drive 3
Adding an Optical Medium Changer (Jukebox) 3
From Standalone to Network Server 4
From Small Network to Larger Network 4
Updating OB **TraceVue** Licenses 4
Adding Web Client Licenses 5
Adding WEB/Terminal Server PC 5
Adding External Database Server PC 5

22. HP Kayak XA PCs 22-1
Specifications 1

Removing the PC Cover 1
Slot Assignments for HP Kayak XA 2
Lightpen Settings for HP Kayak XA 3
Soundcard Settings for HP Kayak XA 3
PCI RS-232 I/F Card 3
Configuration and Setup Tables 4
BIOS Version for HP Kayak XA 4
BIOS Settings for HP Kayak XA 4
SCSI BIOS Settings for HP Kayak XA 9

23. HP Kayak XU PCs 23-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Kayak XU 2
Lightpen Settings for HP Kayak XU 3
Soundcard Settings for HP Kayak XU 3
RS-232 I/F Card 3
Configuration and Setup Tables 4
SCSI History 4
BIOS Version for HP Kayak XU 4
BIOS Settings for HP Kayak XU 4
SCSI BIOS Settings for HP Kayak XU 9
SCSI IDs 9

24. HP Vectra VL400 PC 24-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Vectra VL 400 2
Lightpen Settings for HP Vectra VL 400 2
Soundcard Settings for HP Vectra VL 400 2
RS-232 I/F Card for HP Vectra VL 400 2
Configuration and Setup Tables 3
BIOS Version for HP Vectra VL 400 3
BIOS Settings for HP Vectra VL 400 3
SCSI BIOS Settings for HP Vectra VL 400 4
Interrupt Adjustments for HP Vectra VL 400 4

25. HP Vectra VL420 PC 25-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Vectra VL 420 2
Lightpen Settings for HP Vectra VL 420 2
Soundcard Settings for HP Vectra VL 420 2
RS-232 I/F Card for HP Vectra VL 420 2
Configuration and Setup Tables 3
BIOS Version for HP Vectra VL 420 3
BIOS Settings for HP Vectra VL 420 3
SCSI BIOS Settings for HP Vectra VL 420 4
Interrupt Adjustments for HP Vectra VL 420 4

26. HP Netserver LC2000 PC 26-1
Specifications 1
Removing the PC Cover 1
Serial Ports 1
Slot Assignments for HP NetServer LC2000 2
RAID Configuration for the HP NetServer LC2000 3
Configuration and Setup Tables 4
BIOS Versions for the HP NetServer LC2000 4
PC BIOS Settings for the HP NetServer LC2000 4
SCSI BIOS Settings for HP Netserver LC2000 (HP P2478U / P1802U) 5
SCSI BIOS Settings for HP Netserver LC2000 U3 (HP P2478W) 5
Interrupt Adjustments for HP NetServer LC2000 6

27. Compaq Evo D510 PC 27-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for Compaq Evo D510 2
Lightpen Settings for Compaq Evo D510 2
Soundcard Settings for Compaq Evo D510 2
RS-232 I/F Card for Compaq Evo D510 2
Configuration and Setup Tables 3
BIOS Version for Compaq Evo D510 3
BIOS Settings for Compaq Evo D510 3
SCSI BIOS Settings for Compaq Evo D510 5
Interrupt Adjustments for Compaq Evo D510 5

28. HP Compaq D530 PC 28-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Compaq D530 2
Lightpen Settings for HP Compaq D530 2
Soundcard Settings for HP Compaq D530 2
RS-232 I/F Card for HP Compaq D530 2
Configuration and Setup Tables 3
BIOS Settings for HP Compaq D530 3
BIOS Settings for HP Compaq D530 3
SCSI BIOS Settings for HP Compaq D530 5
Interrupt Adjustments for HP Compaq D530 5

29. Compaq ProLiant ML370 G2 PC 29-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for Compaq ProLiant ML370 G2 1
RAID Configuration for the Compaq ProLiant ML370 G2 2
Configuration and Setup Tables 3
BIOS Version for Compaq ProLiant ML370 G2 3
BIOS Settings for Compaq ProLiant ML370 G2 3
SCSI BIOS Settings for Compaq ProLiant ML370 G2 3
Interrupt Adjustments for Compaq ProLiant ML370 G2 3
PC and RAID BIOS Settings for Proliant ML370 G2 3

30. HP ProLiant ML370 G3 PC 30-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP ProLiant ML370 G3 1
RAID Configuration for the HP ProLiant ML370 G3 2
Configuration and Setup Tables 3
BIOS Version for HP ProLiant ML370 G3 3
BIOS Settings for HP ProLiant ML370 G3 3
SCSI BIOS Settings for HP ProLiant ML370 G3 3
Interrupt Adjustments for HP ProLiant ML370 G3 3
PC and RAID BIOS Settings for Proliant ML370 G3 3

31. HP ProLiant ML350 G4 PC 31-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP ProLiant ML350 G4 1
RAID Configuration for the HP ProLiant ML350 G4 2
Configuration and Setup Tables 3
BIOS Version for HP ProLiant ML350 G4 (3.0 GHz) 3
BIOS Settings for HP ProLiant ML350 G4 3
SCSI BIOS Settings for HP Proliant ML350 G4 4
Interrupt Adjustments for HP ProLiant ML350 G4 4
PC and RAID BIOS Settings for Proliant ML350 G4 4

32. HP ProLiant ML350 G4P PC 32-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP ProLiant ML350 G4P 1
RAID Configuration for the HP ProLiant ML350 G4P 2
Configuration and Setup Tables 3
BIOS Version for HP ProLiant ML350 G4P (3.2 GHz) 3
BIOS Settings for HP ProLiant ML350 G4P 3
SCSI BIOS Settings for HP Proliant ML350 G4P 4
Interrupt Adjustments for HP ProLiant ML350 G4P 4
PC and RAID BIOS Settings for Proliant ML350 G4P 4

33. HP Compaq dc7100 PC 33-1
Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Compaq dc7100 2
Lightpen Settings for HP Compaq dc7100 2
Soundcard Settings for HP Compaq dc7100 2
RS-232 I/F Card for HP Compaq dc7100 2
Configuration and Setup Tables 3
BIOS Settings for HP Compaq dc7100 3
BIOS Settings for HP Compaq dc7100 3
SCSI BIOS Settings for HP Compaq dc7100 5
Interrupt Adjustments for HP Compaq dc7100 5

34. HP Compaq dc7600 PC 34-1

Specifications 1
Removing the PC Cover 1
Slot Assignments for HP Compaq dc7600 2
Soundcard Settings for HP Compaq dc7600 2
RS-232 I/F Card for HP Compaq dc7600 2
Configuration and Setup Tables 3
BIOS Settings for HP Compaq dc7600 3
BIOS Settings for HP Compaq dc7600 3
SCSI BIOS Settings for HP Compaq dc7600 5
Interrupt Adjustments for HP Compaq dc7600 5

A. Fetal Monitor Connections A-1
Overview 1
Conversion Kits 1
Protocol Converter Box 1
Adapter Cable 2
Available Protocol Conversion Kits and Cables 2
Mounting the Protocol Converter 3
Disconnecting a Fetal Monitor from OB **TraceVue** 3
Data Tables for Supported Fetal Monitors 4
HP 8040A 4
Corometrics FM 115 6
Corometrics FM 115D 6
Corometrics FM 116 7
Corometrics FM 118 7
Corometrics 129 / Corometrics Series 120 8
Corometrics Series 150/151 8
Corometrics FM 150 9
Corometrics FM 151 10
Corometrics FM 145 10
Corometrics FM 112 12
Corometrics FM 111 12
Sonicaid Meridian 800 13
Sonicaid TEAM 13
Toitu MT332 14
Toitu MT333 14
Toitu MT430 15
AMS / Litton / PPG/ Kranzbuehler AM66 / IM76 / FM670 16
General Purpose Kit 17
Customizing Adapter Cables 18
Fitting the General Purpose Protocol Conversion Kit 18
Adapter Cable Pin Assignments 19
Notes 21
Cable Pin Layout 22
Fetal Monitor Cable for M1350A/B/C, and Avalon FM20/30 M1380-61612 22
Fetal Monitor Cable for M1351/53 M1380-61613 22
Connecting CORO129 23

1
Overview

What is OB TraceVue?

The Philips OB **TraceVue** system offers high quality data management capabilities for the entire continuum of obstetrical care. It combine surveillance and alerting with comprehensive patient documentation and data storage into one convenient system, giving you all the information you need to document and manage patient care in an OB department, from the first antepartum visit up to delivery, postpartum, and discharge, across several pregnancies.

OB **TraceVue** can be installed as a standalone system or on a network of a server and clients that allows simultaneous monitoring of many patients.

Key options include patient data storage to optical disk; an external server used, for example, to facilitate forms based patient records and statistical reporting; and an optional ADT link to the Hospital Information System.

The users of OB **TraceVue** are obstetrics specialists such as physicians, midwives, and nurses.

Who Should Read This Manual

This book is intended for personnel authorized to install, service or repair an OB **TraceVue** system. This manual is for anyone who:

- Installs OB **TraceVue** hardware and software.
- Configures an installation.
- Upgrades an installation.
- Needs to resolve OB **TraceVue** problems.

A good understanding of the English language is a requirement. You must be familiar with the Windows operating system and be able to use standard tools such as **FDisk** and **Format**.

About This Manual

Understanding the way this manual is organized, and how it gives you instructions, is important to successfully implementing an OB **TraceVue** system. An OB **TraceVue** system is made up from standard hardware components and operates in a standard Microsoft Windows networking environment. Much detailed installation and configuration information already exists in manuals written especially for these standard products. Each component of an OB **TraceVue** system is shipped with support documentation that you must use. Any settings given in this manual override factory defaults and must be implemented.

The electrical, physical, environmental, and performance specifications for OB **TraceVue** are given in its Technical Data Sheet.

This manual:

- Tells you how to install components using existing support documentation without repeating from the existing documentation. Instead it refers to the relevant manuals where necessary. Where there is no pre-existing documentation, such as for installing the OB **TraceVue** software itself, full instructions are given within this manual.
- Divides into the following sections:

Chapters 1-4	A general overview, including safety and security information.
Chapter 5-6	How to get a new system up and running.
Chapter 7-15	How to repair and reinstall hardware and software, and database recovery.
Chapter 16-17	Installing OB **TraceVue** software and its Windows operating system.
Chapters 18-21	System and version upgrade information.
Chapters 22-32	Reference material for PCs.
Appendix	Fetal Monitor information.

Special Tools

You do not need any special tools for hardware installation.

Under some circumstances it may be necessary to perform a Safety test using an appropriate Safety Tester. Refer to Chapter 2, ***Safety***.

For details about wall cabling, wallplates, and connectors, refer to the ***Site Preparation Guide***.

Service Packs

Before setting up a new system or reinstalling OB **TraceVue** software you should always check the Technical Marketing Softserver for the latest OB **TraceVue** service pack(s) and ensure that this is installed too.

Conventions in This Guide

The following conventions for notes, cautions, and warnings are used in this guide:

Note:
A note calls attention to an important point in the text.

Caution:
A caution calls attention to a condition or possible situation that could damage or destroy the product or the user's work.

Warning:
A warning calls attention to a condition or possible situation that could cause injury to the user and/or patient.

Sterilization and Cleaning

The components of an OB **TraceVue** system do not require sterilization before use. Care and Cleaning instructions are provided in the ***Instructions for Use***.

2
Safety

Introduction

This chapter highlights issues that may affect the safety of the patient, hospital staff, and the maintainer. It also shows the relationship of medical to non-medical devices.

WARNING! **IT hardware supplied with OB TraceVue is classified as EDP equipment (IEC 60950) and is not intended for placement in the patient vicinity.**

The patient vicinity is defined as anywhere within 1.85 meters (6 feet) of the perimeter of the patient's bed and 2.3 meters (7.5 feet) from the floor.

A Safety Isolation Transformer must be used for IT products that are placed in the patient vicinity.

Caution: **Servers must be protected from unauthorized user access. Install servers in a room that can only accessed by authorized personnel.**

Symbol Identification

Equipotential Terminal
This symbol is used to identify terminals which are connected together, bringing various equipment or parts of a system to the same potential. This is not necessarily earth potential. (The value of potentials of earth may be indicated adjacent to the symbol.)

International Caution Symbol
This symbol indicates that the operator should refer to the product instruction manual before beginning a procedure.

Earth Terminal
This symbol identifies the terminal for connection to an external protective earth.

System Overview

Centralized System

This configuration shows a typical OB **TraceVue** system, in which the PC is situated at a central station and the fetal monitor is at the patient's bedside.

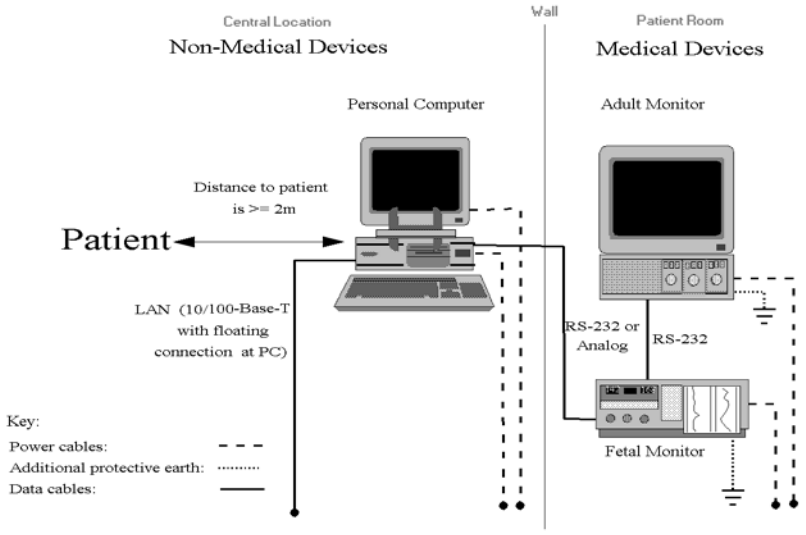


Figure 2-1 System Overview, Office (without isolation transformer)

Decentralized System

This configuration shows a typical OB **TraceVue** system, in which both the fetal monitor and PC are situated at the patient's bedside.

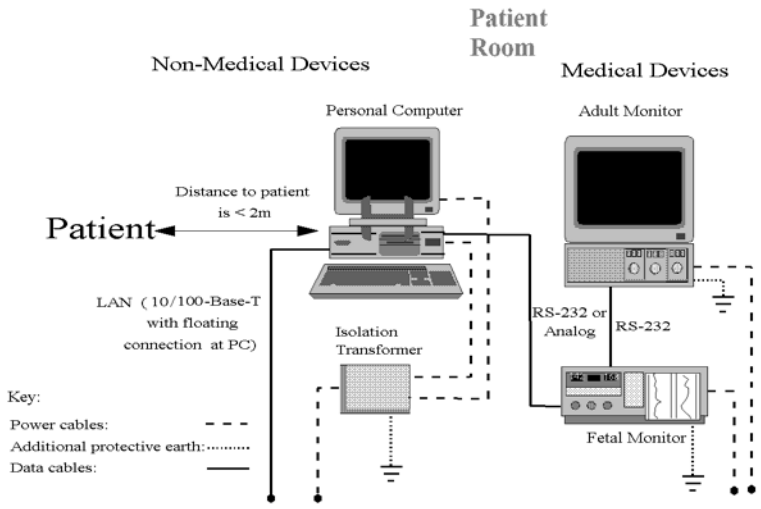


Figure 2-2 System Overview, Bedside (with isolation transformer)

WARNING! Safety regulations require that any PC (both the system unit and display) placed and operated in the patient vicinity is powered via an approved isolation transformer that ensures mechanical fixing of the powercords and covering of any unused power outlets.

Do not connect the fetal monitor or an adult monitor to this isolation transformer.

Uninterruptible Power Supply (UPS)

An uninterruptible power supply (UPS) will, in the event of a mains power failure, supply power for a short period of time.

A “server” UPS is supplied with every server PC. This UPS communicates with the server, so allowing orderly system shutdown.

A “client” UPS is supplied with every client PC, external server and standalone PC. The hospital’s existing UPS provision is not sufficient.

The configuration in ***Figure 2-3*** shows a typical OB **TraceVue** system comprising of an isolation transformer, UPS, PC with display and fetal monitor:

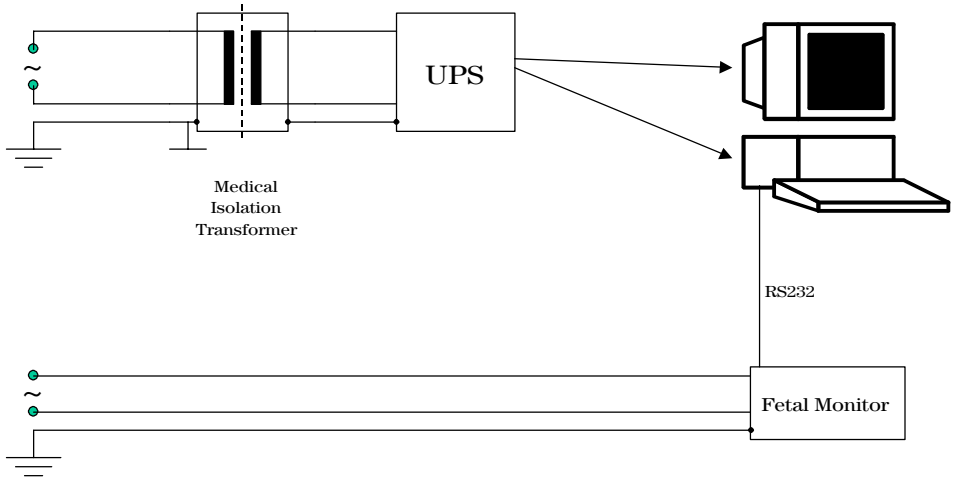


Figure 2-3 UPS in Patient Vicinity

PC Power Consumption

The current rating information on the PC label (for example, 8.5A for Kayak XA) is not relevant to OB **TraceVue**, because it refers to the maximum possible load conditions.

Maximum load conditions would include things such as a high-performance graphics card, CD-writer, maximum number of processors, maximum system RAM, maximum number of hard disks, maximum number of cards, and other accessories. This “worst-case” scenario is not implemented with the OB **TraceVue** system.

The OB **TraceVue** maximum power consumption is 300VA at 100-127V as printed on the isolation transformer (M1389-60001). This transformer controls the total power which is supplied to the OB **TraceVue** unit (UPS + PC + display). The maximum current for this unit is limited to 3.2A by two fuses in the isolation transformer.

Safety Test, Verification, and Customer Acceptance Procedures

This section defines the Test, Verification, and Customer Acceptance procedures applicable to this product.

Use these tables to determine what test and inspection results must be reported for an installation or repair, and to determine the format in which these results must be reported

WARNING! **Apply the safety test limits set by the local standards and statutes applicable to the country of installation, such as IEC 601-1, UL2601, CAN/CSA-C22.2 No.601.1.M90**

The safety test defined in this chapter is derived from local and international standards but may not be equivalent. It is NOT a substitute for local safety testing.

Caution: **Successful completion of the patient safety tests does not ensure correct and accurate operation of the equipment.**

When performing safety tests, you must use a standard safety tester. You can use testers complying with IEC 601-1 internationally. You may also use testers complying with any local standards and statutes applicable to the country of the installation. For safety test procedures see the operating instructions of the safety tester used.

When running safety tests on the peripheral components of the system, refer to the documentation included with those products.

Ground leakage current limits apply to the power cables between:
Mains supply ↔ isolation transformer (required if PC & Display in patient vicinity) ↔ UPS ↔ PC and Display Monitor

Whenever you connect a patient monitor to the OB **TraceVue** system perform the Test, Inspection and Safety tests defined for that monitor. Refer to the documentation included with the patient monitor. If significant parts of the monitor have been exchanged, repaired, upgraded or worked on in any way you may be required to perform additional tests.

Test and Inspection Matrix

Test Block Name	Test or "Inspection" to Perform	Expected Test Results	What to Record on Service Record
Visual	Inspect all system components for obvious damage. Are they free of damage? Is the optical drive environment clean and dust-free?	Expected answers are "yes". If so, Visual test is passed.	V:P or V:F where P=Pass and F=Fail
Power On	Power on the PC(s) and/or peripheral(s). Does the self-test complete successfully? Are user interface controls operational (for example, keyboard, lightpen, mouse, display, sound)? Start OB **TraceVue**: - Does the train engine icon animate without flashing? - Is the OB **TraceVue** icon bar active and accessible?	Expected answers are "yes". If so, Power On test is passed.	PO:P or PO:F where P=Pass and F=Fail
Performance	Perform **all** individual Performance Tests detailed below. Do all the individual Performance Tests pass?	Expected answer is "yes". If so, Performance Test is passed.	P:P or P:F where P=Pass and F=Fail

<table>
<tr><th>Test Block Name</th><th>Test or “Inspection” to Perform</th><th>Expected Test Results</th><th>What to Record on Service Record</th></tr>
<tr>
<td>Performance SoftWare</td>
<td>
<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1.</td><td>Start OB TraceVue.

▪ Does the train icon animate without flashing?
▪ Is the correct system date/time displayed? (Year must be 4 digits).
▪ Is the OB TraceVue icon bar active and accessible?
▪ Does the Philips Configuration screen display the correct software revision?</td></tr>
<tr><td>2.</td><td>Server Only (only if storage option exists)

Insert optical media into optical drive / medium changer (initialize if new).

Optical Drive:
▪ Is the “Disk Status” = “Archive Disk OK” in the Optical Disk Manager dialog?
Medium Changer:
▪ Is the currently active media listed and is the current archive disk <servername - date - time> shown at bottom of the Optical Disk Manager dialog?</td></tr>
<tr><td>3.</td><td>Admit a test patient, generate/collect some data and then discharge the test patient with a closed episode.

▪ Can the test patient be retrieved after approximately 10 min?</td></tr>
<tr><td>4.</td><td>Check print capability from OB TraceVue:
Select the trace, flow chart, note list and current screen check boxes in the OB TraceVue printing module menu. Print one page for each of these selections
Can a printout from OB TraceVue be generated?

▪ FORMS PACKAGE Only: Admit a test patient, generate/collect some data and then discharge the test patient with close episode.
▪ Can the first default Word and Excel document be printed for the test patient?</td></tr>
</table>
</td>
<td>Expected answers are “yes”.

If so, Software test is passed.</td>
<td>PSW:P or PSW:F

where P=Pass and F=Fail</td>
</tr>
</table>

<table>
<tr><th>Test Block Name</th><th>Test or “Inspection” to Perform</th><th>Expected Test Results</th><th>What to Record on Service Record</th></tr>
<tr><td>Performance SoftWare (continued)</td><td>
<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>5.</td><td>Check the OB TraceVue to OB TraceVue link.
Admit a test patient, generate/collect some data and then transfer the test patient to the destination OB TraceVue system.
◎ Is the last episode of the test patient available on the destination system?</td></tr>
<tr><td>6.</td><td>Check the ADT link.
Admit a test patient on the central hospital information system.
■ Is the test patient available on the OB TraceVue system?</td></tr>
<tr><td>7.</td><td>Check WEB/Terminal Server
At a PC connected to the hospital network:
Start Windows Internet Explorer, connect to the WEB/Terminal Server.
Enter http://<<i>ip address</i>>[1] or http://<<i>server name</i>>[2]
■ Does the OB TraceVue WEB page open?
■ Does OB TraceVue WEB client start?</td></tr>
</table>
1. IP address of WEB/Terminal server external NIC
2. WEB/Terminal server must be registered in the hostname locating service (e.g. DNS) of hospital network
</td><td></td><td></td></tr>
<tr><td>Performance RS-232</td><td>For each fetal monitor connected to a PC:
At the fetal monitor generate a fetal trace (only one trace at a time).
At the OB TraceVue PC:
■ Does the trace appear in the single trace display?
■ Does the data appear in the expected bed?</td><td>Expected answer is “yes”.
If so, RS-232 test is passed.</td><td>PRS:P or PRS:F
where P=Pass and F=Fail</td></tr>
</table>

<table>
<tr><th>Test Block Name</th><th>Test or “Inspection” to Perform</th><th>Expected Test Results</th><th>What to Record on Service Record</th></tr>
<tr><td>Performance Serial Port Server</td><td>For each fetal monitor connected to a serial port server:
At the fetal monitor generate a fetal trace (only one trace in the OB TraceVue system at a time).
At the OB TraceVue host PC of the serial port server:
▪ Does the trace appear in the single trace display?
▪ Does the trace appear in the expected bed?</td><td>Expected answer is “yes”.
If so, serial port server test is passed.</td><td>PSPS:P or PSPS:F
where P=Pass and F=Fail</td></tr>
<tr><td>Performance UPS</td><td>
<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td colspan="2">Smart Solution
APC Smart-UPS 1000, see Table UPS Hardware on page 12-18</td></tr>
<tr><td>1.</td><td>Disconnect power from the UPS while OB TraceVue is running.
▪ Does the PC remain powered?
▪ After 2 minutes, is there a message that indicates that the PC is running on battery power?</td></tr>
<tr><td>2.</td><td>Disconnect the serial cable from the UPS while OB TraceVue is running.
▪ Does the PC display a message indicating that the UPS has a problem?</td></tr>
<tr><td colspan="2">Simple Solution
APC Back-UPS / Smart-UPS 620, see Table UPS Hardware on page 12-18</td></tr>
<tr><td>1.</td><td>Shutdown OB TraceVue and disconnect power from the UPS.
▪ Does the PC remain powered?</td></tr>
<tr><td>2.</td><td>Wait for 8 Minutes without restoring the power to the UPS.
▪ Is the operating system shut down by the UPS service?</td></tr>
</table>
</td><td>Expected answers are “yes”.
If so, UPS test is passed.</td><td>PUPS:P or PUPS:F
where P=Pass and F=Fail</td></tr>
</table>

Test Block Name	Test or "Inspection" to Perform	Expected Test Results	What to Record on Service Record
Safety	PC **In** Patient vicinity The PC/display (and client UPS) in the patient vicinity must be connected to a Medical Isolation Transformer. The system must be connected as follows: Mains supply ↔ isolation transformer (required if PC & Display in patient vicinity) ↔ UPS ↔ PC & Display Monitor Do the isolation transformer and fetal monitor have additional protective earth connections? Refer to ***System Overview*** on page 2-2.	If the answer is "yes", Safety test is passed. If the answer is "no", perform Safety(1) test instead.	S:P where P=Pass
Safety (continued)	PC **Not In** Patient vicinity Does the PC have fetal monitor connections? Does each fetal monitor have an additional protective earth connection? Refer to ***System Overview*** on page 2-2.	If the answer is "no", Safety test is passed. If the answer is "yes", go to next Step. If the answer is "yes", Safety test is passed. If the answer is "no", perform Safety(1) test instead.	
Safety (1)	System Safety Test Enclosure Leakage Current / Normal Condition. See ***Enclosure Leakage Current - NC (normal condition)*** on page 2-12. System Safety Test Enclosure Leakage Current / Single Fault Condition. See ***Enclosure Leakage current - OE (open earth)*** on page 2-13. Protective Earth Continuity Test. See ***S(1) Protective Earth*** on page 2-14.	Normal Condition maximum leakage current = x1 (<= 100uA) Single fault maximum leakage current = x2 (<= 500uA) With mains cable max. impedance = x3 (<=200mOhm)	S1:P/x1/x2/x3 or S1:F/x1/x2/x3 where P=Pass and F=Fail

Safety Test Procedures

The test procedures outlined in this section is to be used **only** for verifying safe installation or service of the product.

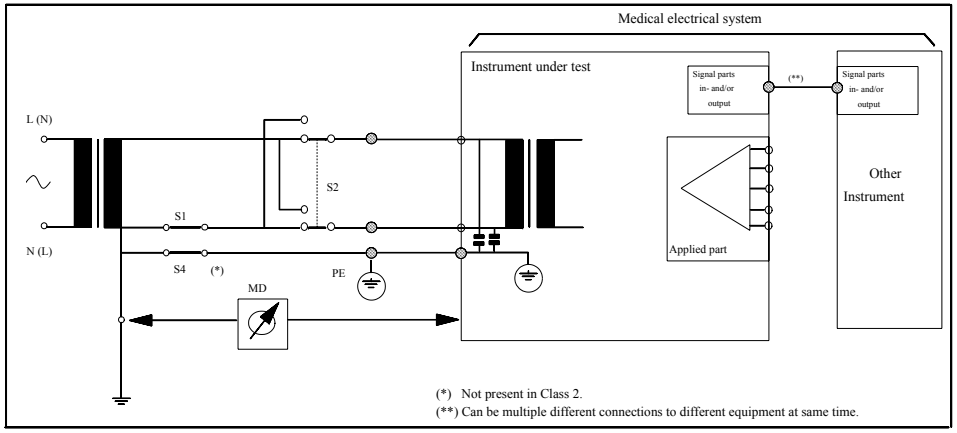
The setups used for these tests and the acceptable ranges of values are derived from local and international standards but may not be equivalent.

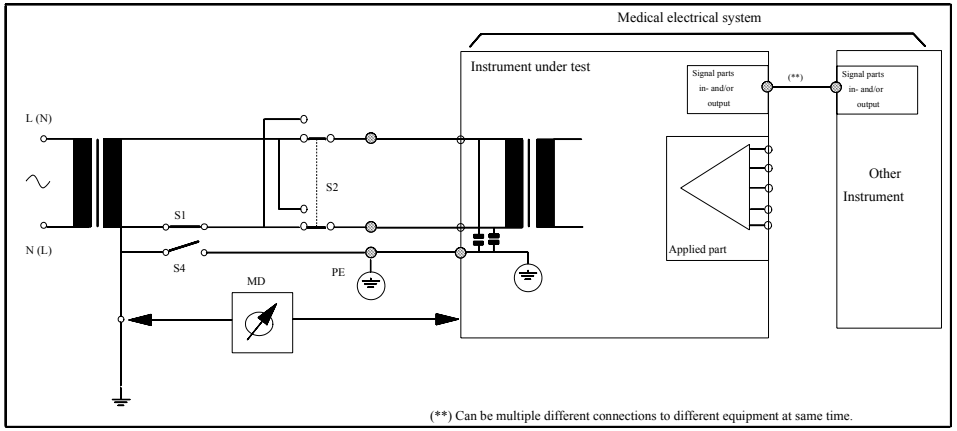
This test is **not a substitute for local safety testing** where it is required for an installation or a service event.

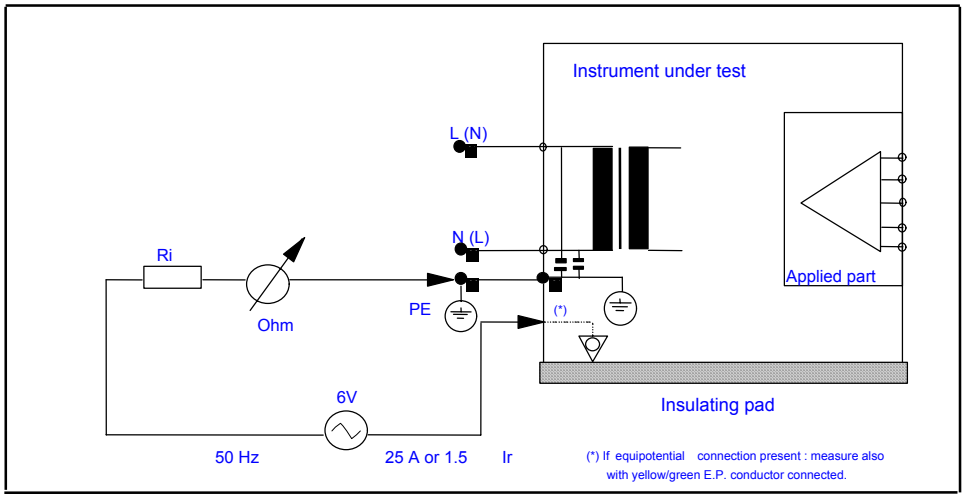
If using the Metron Safety tester use your local regulation to perform the test, *for example* in Europe IEC601-1/IEC601-1-1 and in the US UL2601-1. The Metron Report should print results with the names listed below, along with other data.

“Safety checks at installation refer to safety aspects directly related to the installation and setup activities and not to intrinsic safety features that have already been checked during final acceptance testing at the factory”

[FDA 97-4179 *Medical Device Quality Systems Manual: A Small Entity Compliance Guide* (QSR Manual) First Edition December 1996. Chapter 14: Storage, Distribution and Installation. This document may be viewed at ***http://www.fda.gov***]

Test Block Name	Test or Inspection to perform
S(1) System Enclosure Leakage Current - NC (normal condition)	 Measures leakage current of exposed metal parts of Instrument under Test (IUT) and between parts of the system within the **patient vicinity**; normal and reversed polarity using S2. Use CATI-program with **all** components connected (PC display - transformer system must be tested, the RS-232 and LAN connection must be made). Apply test to point of patient contact: fetal monitor. The system test detects leakage problems caused by any component. Run the test on **each** fetal monitor. If more than one fetal monitor is connected to the same PC or serial port server, disconnect the power cables of the fetal monitors not being tested. **In the patient vicinity:** Run the test on each PC system (includes PC, display, UPS, transformer). The whole system is tested together. **Outside patient vicinity:** No component tests. *Safety test according IEC 601-1-1 (Clause 19.201.1)* Report largest value

Test Block Name	Test or Inspection to perform
S(1) System Enclosure Leakage current - OE (open earth)	 Measures leakage current of exposed metal parts of Instrument under Test (IUT) with Protective Earth (PE) open circuit (S4=open) and between parts of the system within the **patient vicinity**; normal and reversed polarity using S2. Use CATI-program with **all** components connected (PC display - transformer system must be tested, the RS-232 and LAN connection must be made). Apply test to point of patient contact: fetal monitor. The system test detects leakage problems caused by any component. Run the test on **each** fetal monitor. If more than one fetal monitor is connected to the same PC or serial port server, disconnect the power cables of the fetal monitors not being tested. **In the patient vicinity:** Run the test on each PC system (includes PC, display, UPS, transformer). The whole system is tested together. **Outside patient vicinity:** No component tests. *Safety test according IEC 601-1-1 (clause based on 19.201.1}* Report largest value.

Test Block Name	Test or Inspection to perform
S(1) Protective Earth	 Assures impedance of Protective Earth (PE) terminal to all exposed metal parts of Instrument under Test (IUT), which are connected to the Protective Earth (PE) for safety reasons. Normally it includes the wiring in the mains cable (max. 200mOhm). A test current of 25 Amps applied for 5 to 10 seconds. It is recommended to flex the main cable during the test to identify potential **bad** contact or damage to the earth wire. Safety test according to *IEC 601-1 (Clause 18)*. Report the greatest value.

When to Perform Test Blocks

Service Event When performing.....	Test Block(s) Required Complete these tests
Installation	Visual, Power On, Performance, Safety, Safety(1) if required.
Preventive Maintenance	Customer responsibility
Repair - PC (display, internal PC components)	Power On, Performance Software, Safety, Safety(1) if required. If replacing RS-232 card, also do Performance RS-232 test.
Repair - peripherals (printer, optical drive / medium changer)	Power On, Performance SoftWare For printer, only do Performance SoftWare (step 4). For optical drive, only do Steps 1-3 of Performance SoftWare.
Repair - software reload (Operating system, OB TraceVue)	Power On, Performance
Repair - RS-232 (cables, converters)	Performance RS-232
Repair - Serial Port Server	Performance Serial Port Server
Repair - hub/LAN	Power On
Repair - UPS	Visual, Performance UPS, Safety, Safety(1) if required.
Repair - isolation transformer	Visual, Performance UPS, Safety, Safety(1) if required.
Upgrade - add sound, lightpen, display, memory, 2nd network card	Power On, Performance, Safety, Safety(1) if required.
Upgrade - add JetDirect card	Power On, Performance SoftWare (step 4).
Upgrade - add optical (MO) drive	Power On, Performance SoftWare (steps 1-3).
Upgrade - add optical medium changer	Power On, Performance SoftWare (steps 1-3).
Upgrade - add RS-232 card	Power On, Performance RS-232, Safety, Safety(1) if required.
Upgrade - add serial port server	Power On, Performance Serial Port Server
All other Service Events	Visual, Power On, Performance, Safety, Safety(1) if required.

Safety and Site Preparation

After running the tests, return the system to its pre-test condition to restore safe operating conditions.

WARNING!

1. **Site Preparation may involve the application of Mains/Line voltage to the test lead.**

   USE EXTREME CAUTION TO AVOID SEVERE PERSONAL INJURY OR DEATH.

2. **To ensure test accuracy, equipment must be isolated electrically from ground.**

Safety Notes for Cabling and Installation

Fetal Monitor

- The thick yellow-black ground cable is NOT required. It cannot be used as a required safety connection, as it can be removed without tools. It is, however, an additional safety feature.
- All metal parts in the patient room must be grounded to protective earth.

PC in Patient Vicinity

To meet the requirements of IEC 601-1-1 when a PC is located in the patient vicinity:

- Use an **isolation transformer** to supply both the display and the system unit of the PC. The devices must be connected in the following order:
  Mains supply ↔ isolation transformer ↔ UPS ↔ PC & Display Monitor
- **DO NOT** connect the PC to any other device, such as a printer, or a modem, unless the device has an isolation transformer or a floating power supply.

See the ***Site Preparation Guide*** for full cabling details.

Network Verification

Network verification is required. This is part of the wall cabling installation, and is NOT bundled with OB **TraceVue**. It is the customer's responsibility to obtain network certification.

Electrostatic Handling Precautions

Static electricity can damage electronic components. To prevent damage, observe the following handling precautions:

- Use a grounding wrist strap, if available, connected to the metal frame of the computer. To dissipate static electricity, the power cord must be connected between the PC and the wall outlet (by way of the isolation transformer) with the system switched off. If there is no isolation transformer, you require a grounded work place.
- Always touch the metal part of the computer frame just before handling a circuit board or disk drive.
- Avoid directly touching components or edge connectors on the board. Handle circuit boards and disk drives by their metal brackets or frames.

Emissions and Immunity

The product is designed and evaluated to comply with the emissions and immunity requirements of international and national EMC standards. See the following tables for detailed information regarding declaration and guidance.

The EMC standards state that manufacturers of patient-coupled equipment must specify immunity levels for their systems. See Table ***Electromagnetic Immunity - General*** on page 2-19 and Table ***Electromagnetic Immunity*** on page 2-20 for this detailed immunity information. See Table ***Recommended Separation Distances*** on page 2-21 for recommended minimum separation distances between portable and mobile communications equipment and the product.

Immunity is defined in the standard as the ability of a system to perform without degradation in the presence of an electromagnetic disturbance. Degradation in system performance is a qualitative assessment which can be subjective.

Caution should, therefore, be taken in comparing immunity levels of different devices. The criteria used for degradation is not specified by the standard and can vary with the manufacturer.

Guidance and Manufacturer's Declaration

The product is intended for use in the electromagnetic environment specified in the following tables. The customer or the user of the product should assure that it is used in such an environment.

Table 2-1 Electromagnetic Emissions

Emissions Test	Compliance	Electromagnetic Environment Guidance
Radio Frequency (RF) emissions CISPR 11 or CISPR 22	Group 1	The product uses RF energy only for its internal function. Therefore, its RF emissions are very low and not likely to cause interference in nearby electronic equipment.
RF emissions CISPR 11 or CISPR 22	Class A	The product is suitable for use in all establishments, other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	

Table 2-2 Electromagnetic Immunity - General

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ±1 kV for input/output lines	± 2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode ± 2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions, and voltage variations on power supply input lines IEC 61000-4-11	< 5% U_T [a] (> 95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (> 95% dip in U_T) for 5 sec	< 5% U_T [a] (> 95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (> 95% dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the product requires continued operation during power mains interruptions, it is recommended that the product be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
[a] U_T is the AC mains voltage prior to application of the test level.			

Table 2-3 Electromagnetic Immunity

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the product, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Recommended Separation Distance $d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 800 MHz 80 MHz to 2.5 GHz	3 V/m	$d = 1.2\sqrt{P}$ $d = 2.3\sqrt{P}$ where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter's specified output power and *d* is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol:
At 80 MHz and 800 MHz, the higher frequency range applies. These guidelines might not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures are necessary, such as re-orienting or relocating the product. [b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

Recommended Separation Distances

The product is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the product can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the product as recommended below, according to the maximum output power of the communications equipment.

Table 2-4 Recommended Separation Distances

	Separation Distance According to Frequency of Transmitter (m)	
Rated Maximum Output Power of Transmitter (W)	150 kHZ to 800 MHz $d = 1.2\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3\sqrt{P}$
0.01	0.1 m	0.2 m
0.1	0.4 m	0.7 m
1	1.2 m	2.3 m
10	4 m	7 m
100	12 m	23 m
For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be determined using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter's manufacturer. At 80 MHz and 800 MHz, the higher frequency range applies. These guidelines might not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.		

3
Security

Introduction

OB TraceVue Security

The OB **TraceVue** configuration and the patient data stored by OB **TraceVue** are protected by assigning the required user rights such as **System Manager** and **Super User** permission and access rights such as **Read** or **Write** permissions.

For details refer to the ***Instructions for Use***.

Operating System Security

To protect the OB **TraceVue** data files against modification, to ensure patient data safety, and to protect the OB **TraceVue** installation as well as the operating system against corruption only administrators have full access to OB **TraceVue** computers.

Although standard Windows users have only limited access to the computer they can fully operate OB **TraceVue** including all system management tasks if they have the corresponding OB **TraceVue** user rights.

General Security Rules

- Do not assign administrator rights to the windows user group **users** or **OBTV users**.
- The standard Windows user log on should be member of the user group **users** and **OBTV users**.
- Windows administrator accounts should only be used for administration purposes.
- Change administrator passwords on a regular basis.
- Do not change access rights of directories or shares.

Windows Security

Windows User Groups

OBTV Internal
- Created by the OB **TraceVue** setup.
- Do not add users to this group; do not change any setting of this group.

OBTV Users
- Created by the OB **TraceVue** setup.
- Users who are **not** members of **Administrators** must be member of this group in order to start OB **TraceVue**.
- Do not change any setting of this group.

Administrators
- Predefined by Windows.
- Members have full access to the computer.

Users
- Predefined by Windows.
- Members have limited access to the computer.

Windows Users

OBTV Internal
OBTV Connect
- For internal use by OB **TraceVue** only.
- It is not possible to log onto Windows using this account.
- Do not change any setting of these users.

OBTV Administrator
- For administration purposes, member of **Administrators**.
- Full access to the computer.
- It is recommended to change the password after OB **TraceVue** installation.

Administrator
- Predefined by Windows, member of **Administrators**.
- Full access to the computer.
- It is recommended to change the password after OB **TraceVue** installation.

User
- Default user account for running OB **TraceVue**, member of **users** and **OBTV users**.
- Limited access to the computer.
- It is not possible to run applications that require administrator rights using this user account.

Table 3-1 Windows Users and Groups

User	User Group			
	OBTV Internal	Administrators	Users	OBTV Users
OBTV Internal	✓	✓		
OBTV Connect			✓	
OBTV Administrator		✓		
User			✓	✓
Administrator		✓		

Access Rights

Data on the hard disk of OB **TraceVue** PCs is protected by Windows access rights:

- Members of the groups **Administrators** and **OBTV Internal** have full access to the OB **TraceVue** directories, shares, and registry settings.
- All other users have limited access:

Directories

Table 3-2 Directory Access Rights (of users not member of Administrators)

Directory	Access Rights
C:\TV2	Read & Execute
C:\TV2\cfg_exp	Read & Execute
C:\TV2\db	No Access
C:\TV2\dbbackup	No Access
C:\TV2\extdb[1]	No Access
C:\TV2\hl7	Read & Execute
C:\TV2\logdata	Full Control
C:\TV2\patdata	Read & Execute
C:\TV2\prog	Read & Execute
C:\TV2\setup	Read & Execute
C:\TV2\sounds	Read & Execute
C:\TV2\sqlany	Read & Execute
C:\TV2\tools	Read & Execute
D:\TV2[2]	No Access
D:\TV2\db	No Access
D:\TV2\dbbackup	No Access

1. External Server PC only
2. Archive systems only (no RAID)

Shares

Table 3-3 Share Access Rights (of users not member of Administrators) and on which PC type they reside

Share	Directory on standard installation, with backup drive D	Directory on standard installation, without backup drive D	Access Rights	PC Type
Server	**C:**	**C:**	Read	Internal Server
OBTraceVue	**C:\TV2**	**C:\TV2**	Read	Internal Server
OBTVTemplates	**C:\TV2_Templates**	**C:\TV2_Templates**	Read	Internal Server
OBTVReplication$	**D:\TV2\db**	**C:\TV2\db**	Read	Internal Server
SYSROOT$	**C:**	**C:**	Read	All

Tools The table below lists the Windows and OB **TraceVue** access rights required to start a tool.

Table 3-4 Tools Access Rights

Tool	Admin[1]	OB TraceVue Rights[2]				Remarks
		SM[3]	SU[4]	R[5]	W[6]	
Administration Tool	-	☒		☒	☒	
Check Upgrade	-					
Configuration Backup Tool	-					
Database Rebuild Tool	✓	☒				
External Database Administration Tool	-					Special db user (**TVA**) and password required. See ***Integration Guide***.
Fetal Monitor Spy	-					
Get Log	✓					
Link Recovery Tool	✓	☒				
Local Data Recovery Tool	-					
Logfile Viewer	-					
Offline Backup Tool	✓					
OB TraceVue Setup	✓					Special setup passwords required.
Optical Disk Test Tool	✓					Special password required. See ***page 15-23***.
Patient Search Tool	-			☒		Windows administrator rights required to save the configuration.
Retrieve from Optical	✓	☒		☒	☒	
Shell	-					
System Overview Tool	-	☒				
Update Document Templates	✓					
Value Table Editor	-	☒				Offline mode: special password.

1. If checked, **Windows** administrator rights are required to start the tool. See ***Log On As Windows Administrator*** on page 3-6.
2. Tools that require OB **TraceVue** permission rights display a login dialog. Only OB **TraceVue** users with **all** listed rights can log in (Link Recovery and Value Table Editor: SM **or** SU).
3. System Manager permission rights.
4. Super User permission rights.
5. Permission to view patient data.
6. Permission to change patient data

Interrupting Auto Login

If Windows **Auto Login** (see ***Auto Login*** on page 16-8) is configured you need to interrupt that in order to login as a different Windows user.

Hold down the **Shift** key while Windows is booting.

Log On As Windows Administrator

If administrator rights are required (for example, to start a tool or to install drivers):

1. Shut down OB **TraceVue**.
2. Log off Windows.
3. Log on Windows as a user who is member of the Windows **Adminstrators** user group (for example, **OBTV Administrator** or **Administrator**).
4. Start the tool.
5. When finished, log off, log on as **user**.
6. Start OB **TraceVue**.

Modifying Access Rights

For some tasks (for example installation of Word/Excel service releases) it is not sufficient to log on as an administrator. Instead, the user **user** requires administrator rights:

After having finished driver installation remove the user **user** from the **Administrators** group to restore security.

Adding *User to* Administrators Group

1. Log on as ***Windows administrator***.
2. Start ***Computer Management*** → **Local Users and Groups**, select **Users**.
3. Double-click **user**.
4. Click the **Member Of** tab, click **Add ...**
5. Select **Administrators**, click **Add**.
6. Click **OK**.

Removing *User* from Administrators Group

1. Start ***Computer Management*** → **Local Users and Groups**, select **Users**.
2. Double-click **user**.
3. Click the **Member Of** tab
4. Select **Administrators**, click **Remove**.
5. Click **OK**.

4
System Description

Overview

OB **TraceVue** is a PC-based network system for obstetrical surveillance, alerting, and patient data management that supports a server and a maximum of 100 client PCs and 50 fetal monitors per network.

Key options include patient data storage to optical disk; an external server used, for example, to facilitate forms based patient records and statistical reporting; an optional Admission Discharge Transfer (ADT) link to the Hospital Information System (HIS); and an optional WEB access.

- Operating system: Microsoft Windows 2000 Server for a standalone PC, internal server, and (optional) external database server PC; Microsoft Windows 2000 Professional at client PCs.
- Relational Database: Sybase Adaptive Server Anywhere 8
- Optional forms based patient documentation and statistical reporting using Microsoft Word and Excel templates.
- Network: Microsoft Windows 2000, client-server structure, with star topology, Ethertwist 10/100baseT cabling.
- Network Protocol: TCP/IP
  An optional 2nd network interface card allows the OB **TraceVue** LAN to be connected to an isolated external TCP/IP network.
  Connection via routing ports over the hospital backbone is also possible.
- The cable between a fetal monitor and PC uses DB-9 connectors. Where necessary for the fetal monitor, an RS-232 protocol converter is used.

Centralized Implementation

A centralized implementation includes:

- An internal server.
- Client PCs at Central Station, used for data acquisition.
- An optional serial port server used to connect up to 16 fetal monitors.
- An optional external server, never used for data acquisition.
- Fetal monitors in patient rooms, connected to wallplates.
- A switch, for PC to PC and other network connections, perhaps located at the Central Station.
- Wall cabling: Serial (RS-232) connection between client PCs and fetal monitors:
  - Cable-type: Ethertwist UTP.
  - Connectors: 9 pin DSUB.
  - Installation: M1380D, option K41 Serial wall-cable kit (kit for six Fetal Monitors).

Decentralized Implementation

A decentralized implementation includes:

- An internal server in a secure location.
- Client PCs at Central Station, not used for data acquisition.
- An optional External server, never used for data acquisition.
- An optional WEB/Terminal server, never used for data acquisition.
- Client PCs in patient rooms next to fetal monitors allowing bedside data entry (Isolation transformer required in patient vicinity).
- Fetal monitors in patient rooms connected directly to client PC.
- One or more switches, for PC to PC and other network connections, typically located in cable room(s).
- Wall cabling: LAN-connection between server, clients and switch.
  - Cable-type: Ethertwist UTP.
  - Connectors: RJ45.
  - Installation: M1380D, opt K42 LAN wall-cable kit (kit for 6 PCs).

Shipment Status

If the PC is an internal server or external server or standalone, the Microsoft Windows 2000 Server is pre-installed. If the PC is a client, Microsoft Windows 2000 Professional is pre-installed.

If the optional external server is ordered with the optional forms based patient record licence, Microsoft Word and Excel are pre-installed.

All the internal hardware components ordered for a PC are fitted by the factory. For example: a lightpen card, serial interface card, or the SCSI host adapter and additional hard disk required for an internal server with archiving.

Any software, such as additional drivers, required for the internal components fitted to a PC is pre-installed. Any settings required (such as IRQ allocation, address or DMA settings) are made by the factory.

An external component, such an optical drive, may require some setup.

For PCs supplied for new systems, the appropriate OB **TraceVue** software is pre-installed.

For upgrade PCs, the appropriate OB **TraceVue** application software must be installed on-site.

The printer driver is not installed. You may need to amend the PC BIOS to enable its parallel port, and install a printer driver. You may need to connect PCs to a printer that is shared with other PCs in the LAN, or to a printer that has been connected to the LAN using a JetDirect card.

Hardware

This section describes the PCs shipped with OB **TraceVue** systems, so are representative of the hardware required. The exact model and type of hardware used will change, with newer models substituted as they become available.

Note The hardware supplied for earlier versions of OB **TraceVue** systems may not meet these nominal specifications. Refer to Chapter 18, ***Upgrade Overview*** for details of how these PCs can be upgraded, and what restrictions apply to their use in an OB **TraceVue** system.

PCs/Memory

Table 4-1 PCs / Memory

PC Hardware	Memory (MB)			
	Server	**External Server**	**WEB/ Terminal Server**	**Client**
HP Compaq dc7600	**512**	**1024**	**2048**	**512**
HP Compaq dc7600 with serial port server	**512**	**-**	**-**	**512**
HP ProLiant ML350 G4p	**2048**	**2048**	**4096**	**-**

Optical Disk Drives and Medium Changers

All OB **TraceVue** servers with storage can use the following optical disk drives:

- 5200ex 5.2GB (C1114J)
- 9100mx 9.1GB (C1114M)
- 220mx 9.1GB Medium Changer (C1119M)

Drive Combinations

Table 4-2 Supported Optical Disk Drive Combinations

Archive Drive (GB)	Retrieve Drive (GB)	Supported Media (GB)
5.2	5.2	5.2
5.2	9.1	5.2
9.1	5.2	5.2
9.1	9.1	9.1 / 8.6 / 5.2

Cabling

Table 4-3 Connecting Optical Drives

PC ↔ First Drive	First Drive (GB)	First Drive ↔ Second Drive	Second Drive (GB)
M1383-61601 (1m) (+M1381-61608)[1]	9.1 or 5.2	8120-5548CP (HP C2908A)	9.1 or 5.2
M1381-13750 (1.5m) (+M1381-61608)[1]	optical media changer (jukebox)	M1383-61601	

1. Additionally required for ML370 high-end server PCs.

Displays

OB **TraceVue** is optimized to a display resolution of 1024 x 768 pixels, minimum 256 colors.

The current version of OB **TraceVue** can be displayed at different resolutions, but readability may suffer.

Software Components

OB TraceVue

OB **TraceVue** is supplied with:

- a bootable CD-ROM for Server PC, including:
  - Microsoft Windows 2000 Server
  - OB **TraceVue** software for internal server and standalone PCs; external server PCs
  - BIOS images for every type of PC supplied for OB **TraceVue**
  - A disk image of the Boot floppy disk
    This floppy disk is suitable for every type of PC supplied for OB **TraceVue**, whether used as an OB **TraceVue** internal server/standalone, client, or external server.
- a bootable CD-ROM for client PCs, including:
  - Microsoft Windows 2000 Professional
  - OB **TraceVue** software for client PCs
  - BIOS images for every type of PC supplied for OB **TraceVue**
  - A disk image of the Boot floppy disk
    This floppy disk is suitable for every type of PC supplied for OB **TraceVue**, whether used as an OB **TraceVue** internal server/standalone, client, or external server.

Third Party Software

Some application software used with OB **TraceVue** is from third parties. For example, Microsoft Word and Excel are used by optional Forms based patient record and statistical reporting packages.

Caution: **Do not install third party application software at the internal server PC and at the WEB/Terminal server PC.**

Do not install or update third party application software unless either:

- **Sanctioned by a Service Note.**
- **Tested prior to use in accordance with the instructions specified in the *Integration Guide*.**

Wall Cabling and Faceplates

Refer to the ***Site Preparation Guide*** for this information.

System Limitations

OB **TraceVue** has certain implementation restrictions:[1]

Power

- An isolation transformer is required for any PC operated in the patient vicinity, even when a UPS is used. The isolation transformer must be connected in the following order:
  Mains supply ↔ isolation transformer ↔ UPS ↔ PC & Display Monitor
- Hubs, switches and serial port servers must have a stable power supply. If possible connect to UPS.

PCs and Fetal Monitors

- Each PC supports a maximum of four local RS-232 serial ports[2].
- A small surveillance system (internal server, no forms based patient record and **no more** than three clients) may have up to three fetal monitors connected to the internal server, one COM port being used by the server UPS.
  If all four COM ports are used to connect fetal monitors the server UPS must be used off-line. In the event of a power outage the server must be shut down manually.
- If more than 20 clients are connected to the server, no fetal monitors may be connected to the internal server.
- A maximum of 16 fetal monitors (FMs) may be connected directly to one PC.
- A maximum of 100 clients may be online at any one time with the high end internal server. See also Table 18-2, ***Server Memory, Clients, Fetal Monitors***, on page 18-4.
- We do not recommend using the HP Netserver LC2000, Compaq ProLiant ML 370, or ML 350 PC as a workstation; it is intended as a server PC and must be installed in a secure area.

1. These restrictions apply to a new OB **TraceVue** D.01.13 system. Other restrictions may apply to hardware supplied for earlier an OB **TraceVue** versions and that has been upgraded to OB **TraceVue** D.01.13
2. An optional additional RS-232 PCI serial interface card is used to provide COM3 and COM4

Serial Port Servers

- Serial port servers must not be installed in the patient vicinity.
- Serial port servers can be hosted at
  - Standalone PCs
  - Internal Server PCs
  - Client PCs
- A maximum of 16 serial ports can be hosted on one PC. Fetal monitors connected directly to a PC count as one port.
- Up to 8 serial port server devices may be hosted on a single PC.
- Up to 30 serial port servers may be operated in one OB **TraceVue** system.

Modems

- Do **not** connect a modem to a PC placed and operated in the patient vicinity.

Table 4-4 Maximum Number of Modems per OB TraceVue System

PC Type	Modems
Remote Trace Transmission	**6**
WEB Access	not limited, but maximum number of clients must not be exceeded
Remote Support	**2**
Fax	not limited

Table 4-5 Maximum Number of Modems per OB TraceVue PC[1]

PC Type	Remote Trace Transmission	WEB Access	Remote Support	Fax
	supported modem only	standard modem 28 KBps or faster		
Internal Server (more than 20 clients)	**-**	**-**	**1**	**-**
Internal Server (less than 21 clients)	**4**	**-**	**1[2]**	
External Server	**-**	**-**	**1[2]**	
WEB/Terminal Server	**-**	**3[3]**	**-**	**1**
Client with Data Acquisition	**4**	**-**	**-**	**-**
Client without Data Acquisition	**-**	**-**	**-**	**1**

1. The number of modems connected directly to a PC cannot exceed the number of available RS-232 interfaces. If RS-232 interfaces are used for other purposes (e.g. UPS, Fetal Monitor connection) the number of modems that can be connected is reduced accordingly.
2. One modem; shared by remote support and fax. Cannot be used for both purposes as the same time.
3. Two RS-232 plus one USB.

Interfacing

- Only one additional network interface card per PC is allowed in the system.
- The optional ADT link can be installed on a client PC not used for data acquisition.
- Database export to the hospital network (optional) requires the optional external database server.

Network

- The high-end internal server allows a maximum 100 client PCs to be online at any one time. See also Table 18-2, ***Server Memory, Clients, Fetal Monitors***, on page 18-4.
- A client PC used to facilitate the optional ADT interface counts as a client connection.
- The optional External server and each WEB/Terminal client session count as a client connection to the internal server.

OBMS Retrieval

For more information, refer to the OBMS Copy and Retrieve Guide pn M1381-9140K or newer.

Documentation

This documentation and software described here originates from Philips and third party suppliers.

This section describes the documentation that is supplied with the OB **TraceVue** hardware, depending on the options ordered. Documentation is available on the documentation CD-ROM for other manuals not mentioned in this list. The HP PC's *Service Manual,* and Windows manuals are **not** supplied.

OB **TraceVue**:

- Instructions for Use
- System Administration and Configuration Guide
- Integration Guide
- Site Preparation Guide
- Installation and Service Manual

Other Documentation:

- Microsoft Windows Server documentation.
  (On CD-ROM - Paper documentation is not supplied)
- PC documentation CD ROM
- Any documentation supplied with PCI network card
- Any documentation supplied with RS-232 serial interface card
- SCSI host adapter documentation
- HP Optical Disk Drive documentation
- HP Optical Jukebox Model 125ex/220mx Service Manual
- Display User's Guide
- HP Switch Installation and Reference Guide
- APC Back-UPS User's Manual (with optional client UPS)
- HP documentation supplied with printer.
- Moxa NPort Server User's Manual

5
New System Setup

Introduction

This chapter tells you how to get a new system up and running. Most hardware and software is pre-installed at the factory but you have to connect and configure the system.

You should also check the Technical Marketing Softserver for the latest OB **TraceVue** service pack and ensure that it is installed.

PC Types

There are different types of OB **TraceVue** PCs:

- Internal Server PC (includes server without client PCs; formerly: Standalone)
- External Server PC
- WEB/Terminal Server PC
- Client PCs used for data acquisition from fetal monitors (Client Data Acq.)
- Client PCs not used for data acquisition (Other Client)

This chapter consists of a sequence of tasks you must do to install all types of PCs. Each tasks starts with a small table indicating for which PC type(s) the task is relevant. To install an OB **TraceVue** PC, start with task number 1 and go through the tasks that are marked for your PC type.

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

A description of how to start WEB clients and install real-time WEB clients can be found at the ***end*** of this chapter.

Order in which to Perform Tasks

The order in which you perform the tasks is important. When installing a system (server and at least one client), please observe the following workflow:

1. Install the internal server.
2. Install each client.

Installation Checklists

The following pages are installation checklists, one for each PC type. To use the installation checklists:

For each PC in your installation:

1. Determine the type of PC (server, standalone, external server, WEB/Terminal server, client with data acquisition, or other client). Make a copy of the appropriate installation checklist.
2. Install the PC by performing the tasks in the checklist. If a check box is enclosed in parentheses, the task is optional or conditional.

   For each task, the task number refers to the tasks as described in this chapter. The page number(s) refer(s) to the page(s) where information on how to perform the task can be found. Page numbers in bold type refer to the pages with the greatest level of detail.
3. After completing a task, check the check box in the checklist.

When you have finished installing all PCs, staple all the installation checklists together and store them.

Internal Server Installation Checklist

Date: _____

PC Name: _____ Room: _____

Tasks	Page	Done
1: *Check Shipment*	5-13	❑
2: *Put Equipment in Place*	5-13	❑
3: *Set Voltage Selection Switch*	5-13	❑
4: *Connect Keyboard and Mouse*	5-14	❑
6: *Connect Display*	5-14	❑
7: *Install Optical Disk Drive Cabinet (option)*	5-14	❑
8: *Connect Optical Medium Changer (option)*	5-14	❑
9: *Connect Archive Drive (option)*	5-15	❑
10: *Connect Retrieve Drive (option)*	5-15	❑
11: *Connect UPS*	5-15	❑
12: *Connect Isolation Transformer*	5-17	❑
13: *Connect Fetal Monitors*	5-18	❑
14: *Connect to Network*	5-18	❑
15: *Connect Second Network Card (option)*	5-19	❑
16: *Connect Serial Port Server (option)*	5-19	❑
17: *Connect Modem*	5-19	❑
18: *Switch on the OB TraceVue PC*	5-20	❑
19: *Check Drive Letters*	5-20	❑
22: *Set Up Soundcard (option)*	5-20	❑
23: *Install Optical Medium Changer Device Driver (option)*	5-21	❑
24: *Set Time Zone, Local Time and Local Keyboard*	5-21	❑

Tasks	Page	Done
25: *Install or Connect to Printer*	5-21	❑
26: *Set Up OB TraceVue to Work with Other CCOW Applications*	5-23	❑
29: *Configure Server PC Settings and System Settings*	5-24	❑
34: *Start OB TraceVue*	5-27	❑
35: *Configure OB TraceVue at Internal Server PC*	5-27	❑
33: *Install Word/Excel Templates (option)*	5-26	❑
37: *Functionality Test*	5-28	❑
38: *Safety Test*	5-28	❑
39: *Network Security*	5-28	❑
40: *Print and Back-Up Configuration Record*	5-29	❑
41: *Print out PC Installation Record*	5-29	❑
42: *Disable Flexible Disk Drives*	5-30	❑
47: *Change Passwords*	5-34	❑
48: *Power Switch Cover and Warning Label*	5-34	❑
49: *Store System Documentation and Backups*	5-34	❑

This page intentionally left blank.

External Database Server Installation Checklist

Date: _____

PC Name: _____ Room: _____

Tasks	Page	Done
1: *Check Shipment*	5-13	❑
2: *Put Equipment in Place*	5-13	❑
3: *Set Voltage Selection Switch*	5-13	❑
4: *Connect Keyboard and Mouse*	5-14	❑
6: *Connect Display*	5-14	❑
11: *Connect UPS*	5-15	❑
14: *Connect to Network*	5-18	❑
15: *Connect Second Network Card (option)*	5-19	❑
17: *Connect Modem*	5-19	❑
18: *Switch on the OB TraceVue PC*	5-20	❑
22: *Set Up Soundcard (option)*	5-20	❑
24: *Set Time Zone, Local Time and Local Keyboard*	5-21	❑
25: *Install or Connect to Printer*	5-21	❑
26: *Set Up OB TraceVue to Work with Other CCOW Applications*	5-23	❑
27: *Software Engineering for 3rd Party Data Access*	5-23	❑
28: *Software Engineering for HL7 HIS Link (option)*	5-23	❑
30: *Configure External Server PC Settings*	5-24	❑
34: *Start OB TraceVue*	5-27	❑
36: *Configure OB TraceVue at Client PCs*	5-27	❑
37: *Functionality Test*	5-28	❑

Tasks	Page	Done
39: *Network Security*	5-28	❑
41: *Print out PC Installation Record*	5-29	❑
42: *Disable Flexible Disk Drives*	5-30	❑
43: *Prepare Backup of External Database*	5-30	❑
47: *Change Passwords*	5-34	❑
48: *Power Switch Cover and Warning Label*	5-34	❑
49: *Store System Documentation and Backups*	5-34	❑

This page intentionally left blank.

WEB/Terminal Server Installation Checklist

Date: _____

PC Name: _____ Room: _____

Tasks	Page	Done
1: *Check Shipment*	5-13	❑
2: *Put Equipment in Place*	5-13	❑
3: *Set Voltage Selection Switch*	5-13	❑
4: *Connect Keyboard and Mouse*	5-14	❑
6: *Connect Display*	5-14	❑
11: *Connect UPS*	5-15	❑
14: *Connect to Network*	5-18	❑
15: *Connect Second Network Card (option)*	5-19	❑
17: *Connect Modem*	5-19	❑
18: *Switch on the OB TraceVue PC*	5-20	❑
24: *Set Time Zone, Local Time and Local Keyboard*	5-21	❑
25: *Install or Connect to Printer*	5-21	❑
31: *Configure WEB/Terminal Server PC Settings (optional)*	5-26	❑
37: *Functionality Test*	5-28	❑
39: *Network Security*	5-28	❑
41: *Print out PC Installation Record*	5-29	❑
42: *Disable Flexible Disk Drives*	5-30	❑
44: *License Balancing (optional)*	5-31	❑
45: *Activate License Server*	5-32	❑
46: *Install Terminal Server Client Access Licenses (non Windows 2000 clients)*	5-33	❑
47: *Change Passwords*	5-34	❑

Tasks	Page	Done
48: *Power Switch Cover and Warning Label*	5-34	❑
49: *Store System Documentation and Backups*	5-34	❑

This page intentionally left blank.

Client with Data Acquisition Installation Checklist

Date: _____

PC Name: _____ Room: _____

Tasks	Page	Done
1: *Check Shipment*	5-13	❑
2: *Put Equipment in Place*	5-13	❑
3: *Set Voltage Selection Switch*	5-13	❑
4: *Connect Keyboard and Mouse*	5-14	❑
6: *Connect Display*	5-14	❑
11: *Connect UPS*	5-15	❑
12: *Connect Isolation Transformer*	5-17	❑
13: *Connect Fetal Monitors*	5-18	❑
14: *Connect to Network*	5-18	❑
16: *Connect Serial Port Server (option)*	5-19	❑
17: *Connect Modem*	5-19	❑
18: *Switch on the OB TraceVue PC*	5-20	❑
21: *Install Touchscreen Driver (option)*	5-20	❑
22: *Set Up Soundcard (option)*	5-20	❑
24: *Set Time Zone, Local Time and Local Keyboard*	5-21	❑
25: *Install or Connect to Printer*	5-21	❑
26: *Set Up OB TraceVue to Work with Other CCOW Applications*	5-23	❑
32: *Configure Client PC Settings*	5-24	❑
34: *Start OB TraceVue*	5-27	❑
36: *Configure OB TraceVue at Client PCs*	5-27	❑
37: *Functionality Test*	5-28	❑
38: *Safety Test*	5-28	❑

Tasks	Page	Done
39: *Network Security*	5-28	❑
41: *Print out PC Installation Record*	5-29	❑
42: *Disable Flexible Disk Drives*	5-30	❑
47: *Change Passwords*	5-34	❑
48: *Power Switch Cover and Warning Label*	5-34	❑
49: *Store System Documentation and Backups*	5-34	❑

This page intentionally left blank.

Other Client (including Remote Client) Installation Checklist

Date: _____

PC Name: _____ Room: _____

Tasks	Page	Done
1: *Check Shipment*	5-13	❑
2: *Put Equipment in Place*	5-13	❑
3: *Set Voltage Selection Switch*	5-13	❑
4: *Connect Keyboard and Mouse*	5-14	❑
6: *Connect Display*	5-14	❑
11: *Connect UPS*	5-15	❑
14: *Connect to Network*	5-18	❑
15: *Connect Second Network Card (option)*	5-19	❑
17: *Connect Modem*	5-19	❑
18: *Switch on the OB TraceVue PC*	5-20	❑
21: *Install Touchscreen Driver (option)*	5-20	❑
22: *Set Up Soundcard (option)*	5-20	❑
24: *Set Time Zone, Local Time and Local Keyboard*	5-21	❑
25: *Install or Connect to Printer*	5-21	❑
26: *Set Up OB TraceVue to Work with Other CCOW Applications*	5-23	❑
30: *Configure External Server PC Settings*	5-24	❑
34: *Start OB TraceVue*	5-27	❑
36: *Configure OB TraceVue at Client PCs*	5-27	❑
37: *Functionality Test*	5-28	❑
39: *Network Security*	5-28	❑
41: *Print out PC Installation Record*	5-29	❑

Tasks	Page	Done
42: *Disable Flexible Disk Drives*	5-30	❑
47: *Change Passwords*	5-34	❑
48: *Power Switch Cover and Warning Label*	5-34	❑
49: *Store System Documentation and Backups*	5-34	❑

This page intentionally left blank.

Tasks

Task 1 Check Shipment

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Unpack the shipment and cross-check against the customer's order that all hardware and software is present.

Task 2 Put Equipment in Place

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Note The location of the internal server deserves special consideration. An internal server malfunction (crash) will bring down the complete OB **TraceVue** network. To minimize this risk it is highly recommended that the internal server is put in a secure place (such as a closet) and is not used for day-to-day operations except for configuration work, archive-media administration and retrieve. If the internal server is installed in the central station or nursing lounge, it should always be locked to overview display and not used for patient data acquisition, charting or administration. This applies to all OB **TraceVue** networks with more than three clients.

Choose the location and orientation of each display to fulfill ergonomic requirements such as avoiding direct sunlight, and reflections from lamps. This both improves user comfort and allows you to reduce the display's brightness and contrast settings, which significantly increases the display's lifetime.

Task 3 Set Voltage Selection Switch

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Some PCs have a 115V/240V voltage selector switch (refer to the PC's user manual).

If this switch is present, set it to suit the local power supply. If this switch is not present, the PC's power supply is auto-ranging.

Task 4 Connect Keyboard and Mouse

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Plug the keyboard and mouse into the system unit.

Task 5 Connect Lightpen

Lightpens are no longer available.

Task 6 Connect Display

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Fit the power cable

Connect the display to the PC's video out socket.

Task 7 Install Optical Disk Drive Cabinet (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

The optional Optical Disk Drive Cabinet is used to house **one** optical disk drive when used as the optional archive drive for an OB **TraceVue** system. Refer to ***Optical Disk Drive Cabinet*** on page 12-14.

Caution: **Do not place or store anything other than the optical drive inside the cabinet. The empty space around the drive is required to maintain low operating temperatures.**

Task 8 Connect Optical Medium Changer (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Remove the shipping screw and mailslot shipping bracket. Store the screw in a safe place for later use if the changer needs to be re-shipped.

Connect the jukebox to the server's SCSI Host Adapter card.

Refer to ***Optical Medium Changers (Jukeboxes)*** on page 12-12.

Task 9 Connect Archive Drive (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Connect the optical disk drive to the server's SCSI Host Adapter card.

For drive settings refer to ***Drive Settings*** on page 12-11.

Task 10 Connect Retrieve Drive (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Connect the retrieve drive to the archive drive.

For drive settings refer to ***Drive Settings*** on page 12-11.

Task 11 Connect UPS

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

A UPS (Uninterruptible Power Supply) will, in the event of a mains power failure, supply power for a short period of time. This time depends on the capacity and charge in the UPS batteries and the load applied.

- Do not power the fetal monitor, or any other bedside equipment, via the UPS.
- Do not connect a LaserJet printer or a scanner to the UPS.
- Switch on the UPS before switching on any of the equipment connected to it.

Caution: **If the serial link between a PC and its UPS is not used, the PC must be shutdown manually in the event of a power failure and before UPS power fails. Failure to do so could result in corruption.**

Internal Server, Standalone, External Server, WEB/Terminal Server PC

- Connect the UPS to one of the PC's serial ports. See also Table 12-3, ***UPS Hardware***, on page 12-18
- Connect the UPS to the PC serial port COM A so that, in the event of a power outage, the PC will be shutdown automatically.
- If the PC **is** in the patient vicinity, an approved isolation transformer is required. Refer to Task 12: ***Connect Isolation Transformer*** on page 5-17.

- If the PC **is not** in the patient vicinity, connect the PC system unit, the display and the optical drive(s)/medium changer to the UPS. If you have no retrieve drive, you can connect a switch, a serial port server or other network components to the UPS.

Client PC

- Optionally, connect the UPS to one of the PC's serial ports. See Table 12-3, ***UPS Hardware***, on page 12-18.
- If the PC is in the patient vicinity, an approved isolation transformer is required. Refer to Task 12: ***Connect Isolation Transformer*** on page 5-17.
- If the Client PC is **not** in the patient vicinity, connect the PC system unit and display to the UPS.

The client UPS can also to be used to provide a secure power supply for network components such as hubs and serial port servers.

Note It is recommended that you deactivate the UPS acoustic alarm signal. You should discuss this with the customer.

To deactivate the alarm refer to the UPS documentation.

Task 12 Connect Isolation Transformer

X	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
	Other Client

Caution: **Mandatory for all PCs in patient vicinity.**

PCs and displays located in patient vicinity **must** be powered via an approved isolation transformer that ensures mechanical fixing of the powercords and covering of unused power outlets. Use the device power cables supplied with the transformer.

Connecting the Isolation Transformer to the Mains Power Supply and UPS

Caution: **You must connect the devices in the order described below. If you connect the devices in the wrong order, leakage currents exceeding the regulatory limits can occur.**

Connect the devices in the following order:

1. Connect the isolation transformer to the main power supply.
2. Connect the isolation transformer to the UPS.
3. Connect the UPS to the PC.

Connecting the Cables

To connect the cables, open the metal clips at the transformer outlets, insert the cables then close the clips to secure the cables. The configuration in Figure 5-1. ***Isolation Transformer*** shows a typical OB **TraceVue** system comprising of an isolation transformer, UPS, PC with display and fetal monitor:

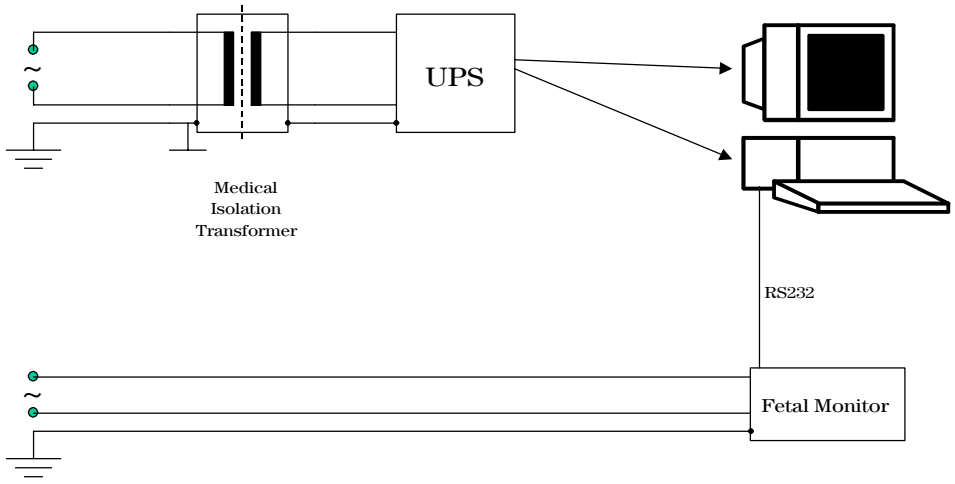


Figure 5-1 Isolation Transformer

Task 13 Connect Fetal Monitors

X	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
	Other Client

Fetal Monitors are connected to the OB **TraceVue** system

- directly via PC COM Ports or
- through a serial port server.

There is no need to power a fetal monitor via either the server UPS, a client UPS, or an isolation transformer.

For details about cables and protocol converters, refer to ***Connecting Fetal Monitors*** on page 6-3.

Caution: **Do not connect a fetal monitor directly to the server except in a small system, that is a system with no more than 20 clients.**

Caution: **When connecting serial devices to the server and all four serial ports are in use, and the UPS is offline: In the event of a power failure, the UPS will power the server but the server will not shut down automatically.**

In the event of a mains power failure, shut down the server manually.

Failure to do so could cause the OB TraceVue database to become corrupted.

Task 14 Connect to Network

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

1. If there are two network interface cards installed locate the first network card: See ***NIC Assignment*** on page 17-21.
2. Plug the network cable into the socket on the back of the PC. See section ***Connecting to the Network*** on page 6-8 for details.

Task 15 Connect Second Network Card (option)

X	Internal Server
X	External Server
X	WEB/Terminal Server
	Client Data Acq.
X	Other Client

1. Locate the second network card: See ***NIC Assignment*** on page 17-21.
2. Connect to the card.
3. Enable the second network card (default = disabled). Refer to ***Second Network Interface Card*** on page 17-20.

Task 16 Connect Serial Port Server (option)

X	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
	Other Client

Refer to ***Installing and Setting up a Serial Port Server*** on page 6-22.

Task 17 Connect Modem

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Refer to ***Modems*** on page 4-9 for limitations regarding the number of modems connected to OB **TraceVue** PCs.

Remote Trace Transmission

- Refer to ***Setting up Remote Trace Transmission*** on page 6-46.

OB TraceVue Web Access through dial-up modems.

- Refer to ***Setting up Web Access Through Dial-Up Modem*** on page 6-46.

Remote Access Support (internal and external server)

- See ***Remote Support Using Terminal Services*** on page 9-3.

Fax Transmission

- Refer to ***Setting Up Fax Transmission*** on page 6-47.

Task 18 Switch on the OB TraceVue PC

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Note Make sure the internal server PC is up and running before you start the client PCs. This allows the client to access the internal server's CD-ROM drive if required.

---

1. Make sure there's no floppy disk in the drive. At the internal server, make sure there's no CD-ROM in the drive.
2. Switch on the optical drives (if fitted), the PC, and the display.

Logging on to Windows

The Autologon option was set at the factory, so the Windows desktop loads automatically. If, for some reason, the Autologon option is not set, log on as user **user**. Password: **user**.

Task 19 Check Drive Letters

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Check the drive letter assignment of the hard disk, the optical drives, and the CD-ROM drive. See ***Checking and Changing Drive Letters*** on page 17-17.

Task 20 Calibrate Lightpen

Lightpens are no longer available.

Task 21 Install Touchscreen Driver (option)

	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

See ***ELO Touchscreen*** on page 17-27.

Task 22 Set Up Soundcard (option)

X	Internal Server
X	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

The soundcard kit is pre-installed and ready to use.

Caution: **The soundcard is reserved for audible alerting and has no other purpose.**

Users must not play audio CDs since this may adversely affect audible alerting.

Do not install additional hardware for playback via the soundcard or install any additional external or internal speaker(s), or install software to control audio CD playback.

You can adjust the volume setting if necessary. See ***To Adjust the Volume*** on page 12-3.

Task 23 Install Optical Medium Changer Device Driver (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

See ***Optical Medium Changers (Jukeboxes)*** on page 17-27.

Task 24 Set Time Zone, Local Time and Local Keyboard

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

You must set the time zone appropriate for the area in which you are installing this system.

1. On all PCs:
   Select the local time zone in the ***Control Panel***.
   Make sure **Automatically adjust clock for daylight saving changes** is **not** selected.
2. Internal Server/Standalone only:
   Set the local date and time in the ***Control Panel***.
   Do not set the local date and time at any other OB **TraceVue** PC. This information is received from the internal server.
3. If you have a non-US keyboard, set the language option accordingly. Refer to ***Regional Settings*** on page 17-18.

Task 25 Install or Connect to Printer

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

See ***Setting Up a Printer*** on page 6-41.

Do **not**:

- Install the printer driver on an internal server PC, unless this is a small system (with no more than three clients) and all the client PCs are in the patient vicinity.

- Install the printer driver on a client with data acquisition. On clients with data acquisition connect to a shared printer.
- Install the standard LaserJet printer in the patient vicinity. The standard isolation transformer, and the UPS, are unable to power the LaserJet printer.

Task 26 Set Up OB TraceVue to Work with Other CCOW Applications

X	Internal Server
X	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Task 27 Software Engineering for 3rd Party Data Access

	Internal Server
X	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Task 28 Software Engineering for HL7 HIS Link (option)

	Internal Server
X	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Task 29 Configure Server PC Settings and System Settings

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Check/Adjust Page File Size

- See ***Windows 2000 Configuration***, ***Server Automatic Configuration*** on page 17-10.
- To check/adjust, start ***Virtual Memory***.

OB TraceVue Setup

You must run the ***OB TraceVue Setup*** to check and, if necessary, adjust configuration of the internal server PC and the OB **TraceVue** system. Select **Only change database settings or system settings.**

See **also *System Settings* on page 16-5.**

Configure Optical Medium Changer (if connected)

- Activate ***Storage***.
- Define ***Disk Drives (Optical Medium Changers)***.

Check/Adjust Number of Client PCs

- Enter the ***Number of clients***. The limits given in Table 18-2, ***Server Memory, Clients, Fetal Monitors***, on page 18-4 must not be exceeded.

Other System and PC Settings

- See ***System Settings*** on page 16-5 and ***Configure Settings*** on page 16-6.

Task 30 Configure External Server PC Settings

	Internal Server
X	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Note Do not configure the external server until you have completed configuring the internal server.

Check/Adjust Page File Size

- See ***Windows 2000 Configuration***, ***External Database Server Automatic Configuration*** on page 17-12.
- To check/adjust, start ***Virtual Memory***.

OB TraceVue Setup

You may run the ***OB TraceVue Setup*** at the external server PC to check and, if necessary, adjust the settings such as use of Auto Login, or OB **TraceVue** Shell settings.

See also ***Configure Settings*** on page 16-6.

For systems that are NOT English, Activate the Office software as described in ***Activate Office and Install Security Updates*** on page 6-51.

Task 31 Configure WEB/Terminal Server PC Settings (optional)

	Internal Server
	External Server
X	WEB/Terminal Server
	Client Data Acq.
	Other Client

Check/Adjust Page File Size

- See ***Windows 2000 Configuration***, ***External Database Server Automatic Configuration*** on page 17-12.
- To check/adjust, start ***Virtual Memory***.

Terminal Services Configuration

See ***Terminal Services Configuration*** on page 17-16

Task 32 Configure Client PC Settings

	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Note Do not configure a client PC until you have completed configuring the internal server.

Check/Adjust Page File Size

- See ***Windows 2000 Configuration***, ***Client Automatic Configuration*** on page 17-14.
- To check/adjust, start ***Virtual Memory***.

Configure OB TraceVue

You may run the ***OB TraceVue Setup*** at each client PC to check and, if necessary, adjust the settings such as port settings, use of Auto Login, or OB **TraceVue** Shell settings.

See ***Configure Settings*** on page 16-6.

Task 33 Install Word/Excel Templates (option)

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

For details see ***Installing Word and Excel Templates*** on page 6-53.

Task 34 Start OB TraceVue

X	Internal Server
X	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

In the **Start** menu click the OB **TraceVue** icon.

Note Do not start OB **TraceVue** at the WEB/Terminal server.
The WEB/Terminal server is dedicated to run only the terminal sessions initiated by terminal client PCs.

Task 35 Configure OB TraceVue at Internal Server PC

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

- Finish configuring the internal server before configuring the client PCs.
- Each configuration screen builds on the information provided on the previous screen. Work through the configuration icons from left to right.
- Create at least one new superuser as the user **Philips** is only to give you initial access to the system and to the **Philips**-only configuration screen.

For details see the ***Instructions for Use***

Note Do not use user **Philips** for regular operation.
Never create/edit/delete patient related data when you are logged in as **Philips** user.

Task 36 Configure OB TraceVue at Client PCs

	Internal Server
X	External Server
	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

- Do not configure a client PC until you have completed configuring the internal server.
- Leave OB **TraceVue** running at the internal server while you complete each client's **PC Configuration** and **Fetal Monitor Setup** screens.

Task 37 Functionality Test

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Perform the Functionality Test as described in ***Test and Inspection Matrix*** on page 2-6.

Task 38 Safety Test

X	Internal Server
	External Server
	WEB/Terminal Server
X	Client Data Acq.
	Other Client

Caution: **Mandatory for all PCs in patient vicinity.**

- If the PC is in patient vicinity, perform the Safety Test as described in ***Test and Inspection Matrix*** on page 2-6

Task 39 Network Security

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

By default SNMP (Simple Network Management Protocol) is **disabled** on all OB **TraceVue** PCs. If you rely on high network security we recommend **against** using SNMP as the protocol, by design, provides minimal security.

Standard firewalling practices recommend blocking the port over which SNMP operates (UDP ports 161 and 162). If these recommendations have been followed, the vulnerability could only be exploited by an intranet user.

Note HP TopTools and HP / Compaq Insight require SNMP.

Task 40 Print and Back-Up Configuration Record

X	Internal Server
	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Backing-up the Configuration Record

Standalone PC: When you have finished configuring the OB **TraceVue** system create a configuration backup record at the server or standalone:

- From OB **TraceVue** by clicking
  Configuration Backup can be made to floppy disk, hard disk or optical disk.
- From Windows: Start the ***Configuration Backup Tool.***
  Configuration Backup can be made to floppy disk or hard disk

Store a backup of the final configuration record in the system binder (on floppy disk).

For more information refer to ***Configuration Backup (Internal Server Only)*** on page 15-20.

Reviewing and Printing the Configuration Record

Although you cannot use the configuration text file to amend or set any installation or configuration parameters, you should print the file and review its content:

1. Start OB **TraceVue**.
2. Go to **System Manager's Configuration** → **General**.
3. Click **Copy of Configuration**, in the **ACSII Format** section click **Export** (you may change the default name of the configuration text file before clicking **Export**).
4. Start **NotePad**, open the configuration text file**.**
5. Print the file.
6. Close **NotePad**.
7. Review the printed file with the System Manager. Store a print of the final configuration record with the configuration backup floppy disk.

Task 41 Print out PC Installation Record

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

Each OB **TraceVue** PC automatically maintains its own installation record. This record contains information such as the setup type (for example, network server), the installation path and system options. To review the installation record:

Go to **Start** → **Programs** → **OBTraceVue Support**, then click **Installation Record**.

By default, the installation record opens as a **.txt** file in **NotePad**. You may print the installation record from **NotePad**.

Task 42 Disable Flexible Disk Drives

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

The floppy disk drives on all OB **TraceVue**PCs are disabled to prevent users attempting to run their own software on OB **TraceVue**.

To change flexible disk drive settings:

1. Restart the PC.
2. Press **F2** when prompted during power up to activate the **BIOS SETUP**.
3. At **BIOS** paragraph **Security Features** enable or disable the following values:.
   - Start From Flexible Disk
   - Flexible Disk Drives

For a reinstallation of the system, drive A has to be enabled.

Task 43 Prepare Backup of External Database

	Internal Server
X	External Server
	WEB/Terminal Server
	Client Data Acq.
	Other Client

Remind the System Manager about setting up a backup schedule.

See also the ***System Administration and Configuration Guide***.

Task 44 License Balancing (optional)

	Internal Server
	External Server
X	WEB/Terminal Server
	Client Data Acq.
	Other Client

Note This is only required if there you are setting up more than one WEB/Terminal Server PC.

Factory installed OB **TraceVue** Web Client licenses may not suit the customer's needs. Determine the total number of assigned client licenses, discuss the requirements with the customer and distribute the licenses as needed.

Determine Number of Client Licenses

Perform the following steps on all WEB/Terminal Server PCs and summarize the number of licenses.

1. Start the Terminal Services Configuration tool: ***Administrative Tools*** → **Terminal Services Configuration**.
2. In the left pane select **Connections**, in the right pane select **OBTV Tcp**.
3. From the menu select **Action** → **Properties**.
4. Choose the **Network Adapter** tab. The maximum number of connections is equivalent to the number of configured **Client Licenses**.

Discuss Client License Distribution with Customer

When discussing the license distribution with the customer, consider the following issues:

- How many users should be able to connect to which OB **TraceVue** system at the same time? This gives you the number of licenses that should be assigned to each system. The total number of licenses for all systems must equal the number of licenses ordered.
- For best performance licenses should be evenly distributed among the WEB/Terminal Server PCs of a single system.

Distribute Client Licenses

Client licenses must be adjusted at the following two places:

- **Terminal Services Configuration**
  a. Start the Terminal Services Configuration tool as described in ***Determine Number of Client Licenses*** on page 5-31.
  b. Adjust the maximum number of connections. The maximum number is **12**.
- **Windows Client Access Licenses**
  a. Open ***Licensing***.
  b. In the **Licensing Mode** dialog select **Per Seat**.

Task 45 Activate License Server

	Internal Server
	External Server
X	WEB/Terminal Server
	Client Data Acq.
	Other Client

Use the Terminal Server License Manager to activate Terminal Server License Server. For detailed information about Terminal Service licensing refer to the help in the License Manager.

Note Without activation of the License Server the OB **TraceVue** Web Access will be deactivated after a grace period of 90 days.

Perform the following steps to activate the License Server:

1. Start the Terminal Server License Manager: ***Administrative Tools*** → **Terminal Services Licensing**.
2. Select the appropriate server (activation status: **not activated**) in the list of available license servers.
3. From the menu choose **Action** → **Activate Server**.
4. The Licensing Wizard guides you through the process of activating the License Server. Choose **Telephone** as connection method and call the Microsoft license clearing house for your region. The wizard will provide you with the appropriate telephone number.
5. Provide the clearing house with the information below:

Licensing Program:	Other
Product ID:	The product ID is displayed in the wizard.
Company:	Name of the institution where the license server is installed.
Organizational Unit:	Optional.
Last Name:	Last name of the responsible person of the institution.
First Name:	First name of the responsible person.
Phone:	Phone number of the responsible person.

6. The clearing house will provide you with the activation key that is required for activating the license server and finishing the wizard.

Note If activation by telephone fails (error message when finishing license server activation process) restart the Licensing Wizard and choose **World Wide Web** as connection method.

The activation must be performed for all OB **TraceVue** WEB/Terminal Server PCs.

Task 46 Install Terminal Server Client Access Licenses (non Windows 2000 clients)

	Internal Server
	External Server
X	WEB/Terminal Server
	Client Data Acq.
	Other Client

Access of PCs with non-Windows 2000 operating systems (such as Windows 98) to OB **TraceVue** Web Access requires separate purchase and activation of **Terminal Service Client Access Licenses** (TSCALs). The licenses must be ordered through a Microsoft sales channel. It is the sole responsibility of the customer to order and activate these licenses. Refer to the help of the Terminal Server License Manager for details of the Terminal Server licensing model.

Note

- Windows 2000 client PCs do not need a separate TSCAL because the operating system already includes a preinstalled TSCAL.
- Non-Windows 2000 clients can access OB **TraceVue** Web Access without TSCAL for a grace period of 90 days. After that period a valid TSCAL has to be installed for these clients.
- After activating new TSCALs in the license server, non-Windows 2000 clients should immediately connect to OB **TraceVue** Web Access to initiate automatic transfer of the license. This prevents unintended usage of the licenses by other clients.

Task 47 Change Passwords

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

It is recommended to change the passwords of the

Windows Users (at all PCs)

- **Administrator**
- **OBTV Administrator**

and the OB **TraceVue** User

- **Philips**

Caution: **Note the passwords and store in a safe place.**
If all administrator passwords got lost you need to reinstall Windows.
If the Philips password got lost see *Restoring the OB TraceVue Philips Password* on page 16-9.

Task 48 Power Switch Cover and Warning Label

X	Internal Server
X	External Server
X	WEB/Terminal Server
X	Client Data Acq.
X	Other Client

To help avoid the accidental uncontrolled shutdown of a PC, a plastic cover is provided which protects the power switch on the PC front panel.

To fit the power switch cover

1. Clean the surface around the PC's power switch.
2. Stick the power switch cover in place so its hole is over the center of the power switch.

To operate the power switch

To operate the switch, push a stiff wire (such as a bent paper-clip) into the hole in the center of the switch cover.

Warning Label

Each PC is supplied with a sheet of adhesive labels warning not to turn off the PC.
Choose the language suitable for this installation and apply the label to the front of the PC so it is clearly visible.

Task 49 Store System Documentation and Backups

Store all license sheets, password sheets, configuration printouts, the installation record, and emergency repair disks in a safe location.

WEB Clients

Starting a WEB Client

1. At a PC connected to the hospital network start the Windows Internet Explorer[1].
2. In the Address Bar enter **http://<*ip address*>**[2] or **http://<*server name*>**[3]**.**
3. Click **Start OB TraceVue Web Access**.

Note The default resolution for a Web client is 800x600. To start with a different resolution open **large.htm** (1024*768) or **full.htm** (full-screen).

Real-Time WEB Client

Installation

1. At a PC connected to the hospital network start the Windows Internet Explorer[1].
2. Enter **http://<*ip address*>/install.htm** or **http://<*server name*>/install.htm.**
3. Click one of the links in the Web page to download the **Software Only Setup**.
4. In the **File Download** dialog click **Run this program from its current location** to start **TVWebSetup.exe**.
5. Follow the instructions on screen.

Check Real-Time Connection

To check correct installation of a real-time client:

1. Start an OB **TraceVue** Web client (see ***Starting a WEB Client***). Log in as a OB **TraceVue** user with System Manager permission rights.
2. Right-click the train engine icon.
3. Type **webtest**. A dialog opens.
4. Click the buttons to test the sounds.

Note If the train engine icon is not visible check log file of the web client.

1. Windows NT, 2000, XP: you must have Windows administrator rights if you start OB **TraceVue** Web Access for the first time.
2. IP address of WEB/Terminal server external NIC.
3. WEB/Terminal server must be registered in the hostname locating service (e.g. DNS) of hospital network.

6
Setup Details

Introduction

This chapter gives details on the following setup tasks:

- ***Installing a Client on a Cart (Mobile Client)***.
- ***Connecting Fetal Monitors***.
- ***Connecting to the Network***.
- ***Installing and Configuring Remote LAN Clients***.
- ***Patient Search Tool Network Configuration***.
- ***Installing and Setting up a Serial Port Server***.
- ***Setting Up a Printer***.
- ***Setting Up Remote Connectivity***.
- ***Installing Microsoft Office 2003***.
- ***Installing Word and Excel Templates***

The detailed descriptions in this chapter are referred to from Chapter 5, ***New System Setup***.

Installing a Client on a Cart (Mobile Client)

A client PC can be cart mounted with a Series 50 IX, XM, or XMO (M1350 A/B/C) Fetal/ Maternal monitor.

Refer to the Carts Equipment Note M1325-9001D, Cart CX.

There is no provision for using the installed mouse; a touchscreen or lightpen option is required.

Do not cart mount an OB **TraceVue** client PC to a Model 80300A Mobile Cart. The CRT display is too heavy, and mounting brackets are not available.

Do **NOT** connect a printer to a cart mounted client.

Telemetry Unit

If telemetry is used, fix the M1310A receiving module to the top of the Cart CX, then fit the display to the top of the receiving module using the mounting brackets provided with the cart.

Client UPS

You must power the PC system unit and display via a UPS and an isolation transformer. The client UPS and isolation transformer fit onto the lowest shelf of a Cart CX, and the PC system unit on the shelf above.

Make the power connections as follows:

Mains ↔ Isolation Transformer ↔ UPS ↔ PC/Display

*Do **not*** power the fetal monitor via a UPS.

*Do **not*** attempt to leave OB **TraceVue** running at a client (supported by the client UPS) while the cart is disconnected from the LAN and moved to a new location.

If you move a mobile client into a storage room, reconnect the UPS to the power supply to recharge the UPS batteries. *Never* leave the UPS disconnected, because the batteries will drain down. Make sure that the system manager understands this.

Configuration

After starting OB **TraceVue** this client needs to be configured as **Mobile**. Refer to the ***Instructions for Use*** for configuration instructions.

Moving the Cart

Whenever the mobile client is moved to a different location you need to assign the new bed to the client PC.

To shut down a mobile client

1. Exit OB **TraceVue**.

   You must exit OB **TraceVue** before moving the cart, disconnecting from the LAN, or turning off the client.

2. Go to **Start** → **Shutdown**, select **Shut down**.
3. When prompted that it is safe to do so, turn off the computer.
4. Disconnect the power and LAN cables.

To start a mobile client

1. Connect the power and LAN cables.
2. Turn on the PC.
3. Log on to Windows as **user** (if no automatic login is setup).
4. Log on to OB **TraceVue**.
5. At the **Fetal Monitor Setup** screen verify the Fetal Monitor connections and select the correct bed labels. Assign the new bed to the new location.
6. A cart mounted PC is configured as a mobile client. The OB **TraceVue** startup screen for a mobile client is the **Fetal Monitor Setup** screen.

Connecting Fetal Monitors

This section tells you how to connect fetal monitors to OB **TraceVue**.

Fetal monitors are connected to

- the COM ports of the client PCs
- the COM ports of the server PC (**small systems only**)
- the COM ports of a standalone PC
- the COM ports of a serial port server.

M1350, M1351/53 and Avalon FM20/FM30 Monitors

M1350[1], M1351/53, and Avalon FM20/30 fetal monitors are connected directly, using only the RS-232 FM-cable. [2]

Other Fetal Monitors

All other fetal monitor cables come as a cable unit consisting of:

- Small cable from Fetal Monitor to converter.
- Converter box.
- RS-232 cable to COM port or Wallplate SUB-D.

Network Type

Decentralized In a decentralized installation, client PCs are located in patient rooms next to the fetal monitors. The RS-232 cable from the fetal monitor connects directly to a COM port on the client PC.

Centralized In a centralized installation, client PCs are located at a central location next to the server. RS-232 cable from the FM cable kit plugs into the 9pin SUB-D wall plate (male) in the patient room. Wall cabling represent RS-232 connection (M1380x #K40).

Use the PC cable provided with the wall cabling option (M1380x #K41) to connect from wallplate 9pin SUB-D (female) at the central location to the PC COM port. This cable is wired straight through, do not use a crossed RS-232 cable. See the ***Site Preparation Guide*** for wall cable drawings.

1. Requires RS-232 Digital Systems Interface.
2. Avalon FM20/30 not currently available in USA.

Connecting Four Fetal Monitors

The PC must be fitted with an additional RS-232 serial interface card to support four fetal monitors.

The PCI RS-232 serial interface card provides two additional COM ports, both 9 pin.

Connecting More than Four Fetal Monitors

More than 4 fetal monitors can be connected using one or more serial port servers. For details see ***Installing and Setting up a Serial Port Server*** on page 6-22.

Protocol Conversion

OB **TraceVue** accepts the digital signal protocol used by Series 50 and Avalon FM20/FM30 fetal monitors. Other fetal monitor types, including others manufactured by HP/Agilent/ Philips, use different cable connectors and signal protocols. To connect these to OB **TraceVue** you must use the appropriate adapter cables and protocol converters. A separate converter is required for each fetal monitor. Refer to Appendix A for details of how to use the protocol conversion kits, and data tables for supported fetal monitors and mounting instructions.

Mounting the Converter Box

Mount the converter box onto the fetal monitor housing using the velcro patch provided.

Hewlett-Packard / Agilent / Philips Fetal Monitors

The following information will help you to connect standard HP/Agilent/Philips monitors. See the ***Site Preparation Guide*** for full details, including ordering information, for the system interface requirements and cable drawings.

M1351/53 Fetal Monitor

Use the OB **TraceVue** connection cable M1380-61613, (M1380x option K13), which has a 24pin connector to the monitor. Do not use the 9pin connector.

The RS-232 interface requires at least software version A.02.02 and M1353-69531(E).

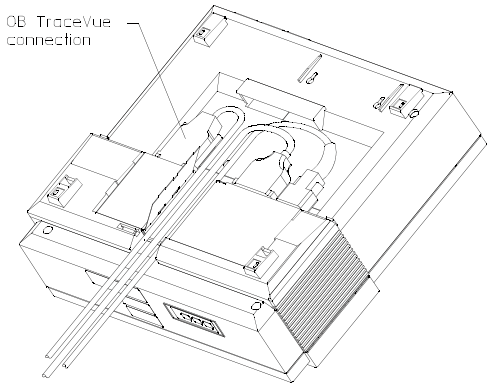


Figure 6-1 OB TraceVue connection on M1351/53

M1350A/B/C

Use the OB **TraceVue** connection cable M1380-61612, (M1380x option K12) which has a 9pin connector. If an RS422 interface is also plugged in, you need to set the push button configuration setting C13 to 1. See the *Service Guide* for this monitor for details about how to change the configuration settings.

The RS-232 interface requires at least software revision A.04.01.

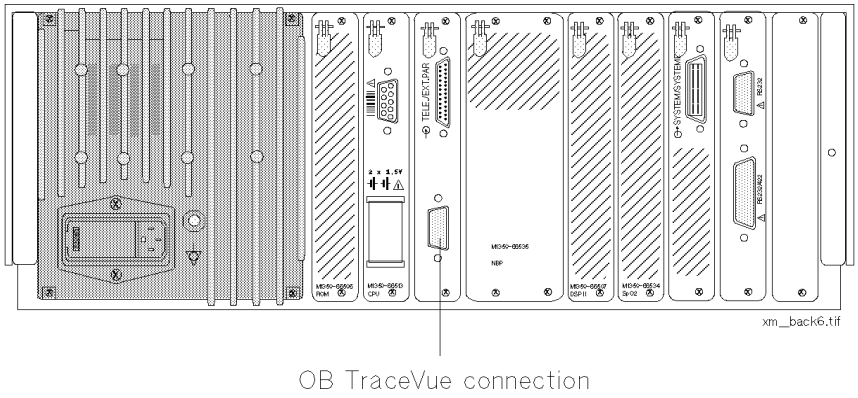


Figure 6-2 M1350A/B/C RS-232 Digital System Interface connection to an OB TraceVue system

FM2

Use the OB **TraceVue** connection cable M1380-61624 (M1380x option K10) to connect the FM2 directly to OB **TraceVue** for real-time patient data transfer (“System Online”).

For complete patient record transfers (“System Batch”) you must use a modem. There is no direct interface.

Avalon FM20 and FM30

Use the OB **TraceVue** connection cable M1380-61612 (M1380x option K12) to connect via the RS-232 port. The interface connections are underneath the monitor. Requires software C.00 or greater.

FM20/30 not currently available in USA.

Connecting to the Network

The installation and maintenance of network cabling to a professional standard is the customer's responsibility. This section describes how PCs in an OB **TraceVue** installation are connected to form a Local Area Network (LAN).

Note See also ***Integration Guide***, chapter Network Guide.

Network Connections

The OB **TraceVue** PCs are connected to a hub, or hubs and switches to form a LAN with star topology.

OB **TraceVue** PCs may be connected to the hospital network. An optional 2nd network interface card, VLAN, or routing ports to the hospital backbone can be used for this purpose. The 2nd network card may be fitted in the optional external server, client PC, or the internal server.

In a decentralized installation, client PCs are located close to the bedside, so the wall cabling is the LAN connection. In centralized installations, much of the wall cabling is from fetal monitors to client PCs located, for example, at the Central Station.

When the FSE installs OB **TraceVue** all wall cabling must be in place. If additional clients are purchased, extensions to the LAN and any other fixed cabling must be in place before the FSE re-installs OB **TraceVue**.

Hubs and Switches

Note If the OB **TraceVue** system is connected to the hospital network only Switches are supported.

The following hubs and switches are supported:

- Hub 8U (has 8 ports).
- Hub 16U (has 16 ports).
- HP ProCurve Autosensing 10/100 Hub 12 (has 12 ports and is referred to in this manual as Hub 12).
- HP ProCurve Autosensing 10/100 Hub 24 (has 24 ports and is referred to in this manual as Hub 24).
- HP ProCurve Switch 2224/2324 (has 24 ports and is referred to in this manual as Switch).

Detailed information on how to install these products is provided in the appropriate installation guide. The installation guide is delivered with the hub or switch.

Network Specifications

Note For 100Base-T network topology rules, see the card *Connectivity Rules for 100T Networks* that is included with the hub.

Networks with Switch

- The OB **TraceVue** Internal Server PC must be connected directly to the switch (100 Mbps). It is recommended to connect the External Server PC to the same switch.
- It is possible to mix 10 Mbps and 100 Mbps devices.
- Network devices can be connected directly to a switch port or through a hub.
- If connecting hubs the number of devices **per switch port** must not exceed
  - 16 (10 Mbps networks)
  - 24 (100 Mbps networks)
- Switches can be cascaded.
  Cascading switches can be used to extend the distance between OB **TraceVue** server and clients.

Networks without Switch

- The number of network devices must not exceed
  - 16 (10 Mbps networks)
  - 24 (100 Mbps networks)

Number of Hubs

The number of hubs required depends on the number of network devices such as OB **TraceVue** PCs, network printers and serial port servers.

10 Mbps Networks

- Up to four hubs can be cascaded together.
  Cascading hubs can be used to extend the distance between OB **TraceVue** server and clients.

100 Mbps Networks

- Up to two hubs can be cascaded together.
  Cascading hubs **cannot** be used to extend the distance between OB **TraceVue** server and clients.

Limitations

- Up to 16 network devices (10 Mbps networks) or 24 network devices (100 Mbps networks) are supported.
- If you need to connect more devices you **must** use a switch.

Serial Port Servers

The network between the serial port server and the host PC must not be routed (same network segment).

See also ***Connect the Serial Port Server*** on page 6-25.

Examples

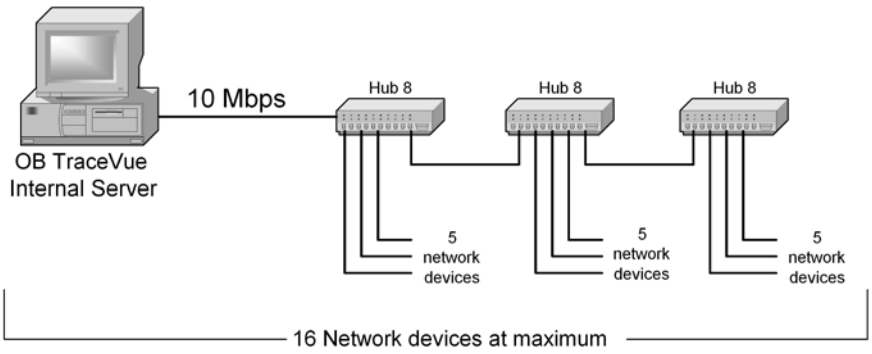


Figure 6-3 10 Mbps Network

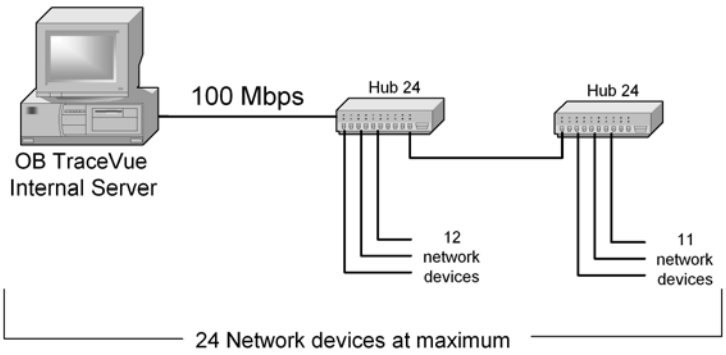


Figure 6-4 100 Mbps Network

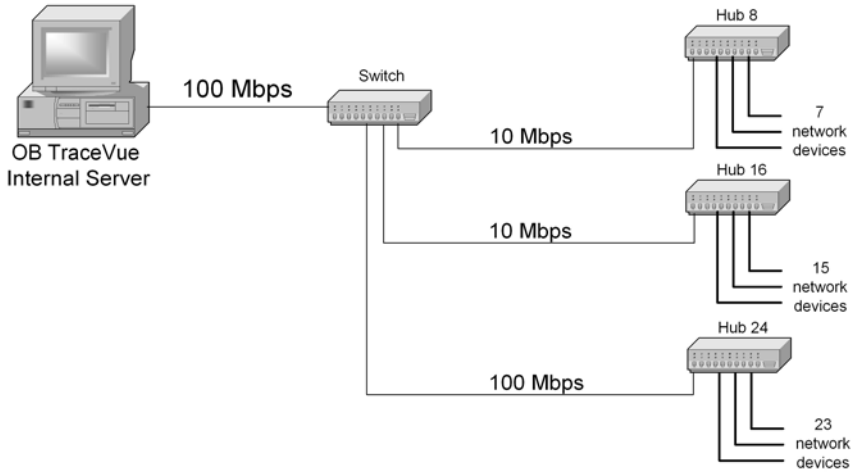


Figure 6-5 Mixed 10/100 Mbps Network with Switch

Cable Specifications

All the cable used in the LAN must be twisted pair with at least 2 twists per foot or 6 twists per meter. This cable is also known as “EtherTwist”.

The customer must ensure cables are within the maximum length permitted for LAN cabling, including the lengths of cable between faceplates and hardware.

Table 6-1 Cable Type and Length

Connection Type	Cable must conform to specifications defined in:	Cable Type	Length Limits
10Base-T	IEEE 802.3 Type 10Base-T standard	Category 3, 4, 5 or 6 four pair, 100Ω Unshielded Twisted Pair. RJ-45 modular plugs. **Note:** Since the 10Base-T operation is through 10/100Base-TX ports, it would be better to cable the ports initially with category 5 or 6 cables, in case you ever want to upgrade the ports to 100Base-T.	• 100m[1] hub ⇔ end node • 100m hub ⇔ hub • 100m hub ⇔ switch • 100m switch ⇔ switch
100Base-TX	IEEE 802.3u Type 100Base-TX standard	Category 5 or 6 100Ω Unshielded Twisted Pair. RJ-45 modular plugs.	• 100m hub ⇔ end node • **5m hub ⇔ hub** • 100m hub ⇔ switch • 100m switch ⇔ switch
100Base-FX **Switch only:** for transceiver connection (optional)	ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a respectively.	62.5/125µm or 50/125µm (core/cladding) diameter, graded - index, multimode fiber-optic cables. Fitted with SC connectors.	2km[2] for full duplex connections (the 100Base-FX transceiver only operates in full duplex mode).
RS-232		9-pin/25-pin SUB-D connector. **8/16-port serial Port Server:** RJ45-10 / 9-pin SUB-D connectors.	100m

1. 330 ft
2. 1.68 miles

Do not use flat cable in the LAN, even if the cable length is very short. The minimum LAN cable length used, for example, to connect two hubs in a rack is 0.5m.

100 Base-T Cable Testing

Use a Wire Test Instrument to determine whether a cable is suitable for a Type 100Base-T network by testing attenuation, crosstalk, continuity and burst noise. Refer to the CAT-5 Specification

Attenuation	11.5dB attenuation between 5MHz and 10MHz (10dB in cable, 1.5dB in connectors)
Pair to Pair	≥30.5dB at 5MHz
Crosstalk	≥26dB at 10MHz

Cabling a LAN

The following illustration show a large network installation that uses a switch. Faceplates are omitted for clarity.

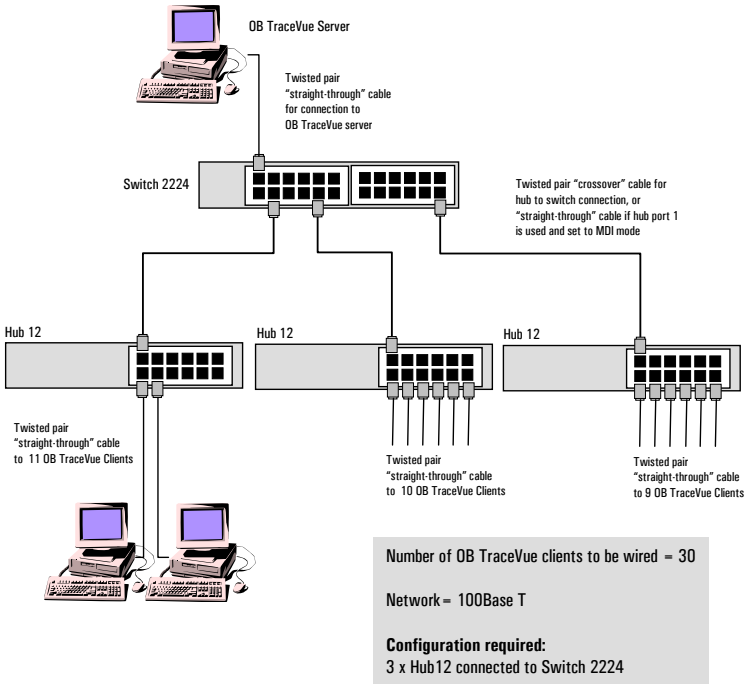

OB TraceVue Server
Twisted pair "straight-through" cable for connection to OB TraceVue server
Switch 2224
Twisted pair "crossover" cable for hub to switch connection, or "straight-through" cable if hub port 1 is used and set to MDI mode
Hub 12
Hub 12
Hub 12
Twisted pair "straight-through" cable to 11 OB TraceVue Clients
Twisted pair "straight-through" cable to 10 OB TraceVue Clients
Twisted pair "straight-through" cable to 9 OB TraceVue Clients
Number of OB TraceVue clients to be wired = 30
Network = 100Base T
Configuration required:
3 x Hub12 connected to Switch 2224

Figure 6-6 Example: Connecting 3 Hubs to a Switch 2224/2324

To connect a PC to the LAN cable

When connecting a PC to a LAN cable, ensure that the catch on the RJ-45 connector is clicked in place correctly.

Caution: **When failing to secure the LAN cable properly the client may shut down or crash, and loss of data may occur.**

---

1. Plug one end of the EtherTwist cable into the RJ-45 socket on the network card in the PC. Push the connector in as far as possible.
2. Gently pull the cable to test whether the catch is properly clicked in. If the connector cannot be pulled out, it is firm; continue with step 4. If it can be released by pulling, continue with step 3.

3. Take a closer look at the RJ-45 socket on the PC. If the hole is too close to the edge of the PC housing the catch on the connector cannot click in. To alleviate the problem:
   a. Turn off the power.
   b. Remove the PC housing.
   c. Loosen the screw holding down the network adapter.
   d. Move the network adapter until as much of the RJ-45 socket is uncovered to let the connector click in properly. If necessary, use a moderate amount of force.
   e. Tighten the screw holding down the network adapter.
   f. Replace the PC cover.
4. If the client is in a cart you must provide some form of strain relief for the LAN cable on the PC side, for example, a tie-wrap.

To connect a PC to a Hub or Switch

Ensure that mains power to all equipment is switched off before you start. See the ***Site Preparation Guide*** for wall cable drawings.

1. Connect the LAN cable to the PC (see ***To connect a PC to the LAN cable on page 6-13***).
2. Plug the other end of the EtherTwist cable into an RJ-45 port on the LAN faceplate. For a centralized installation, plug it into the hub or switch RJ-45 port directly.
3. Connect the hub or switch to the faceplates.
4. Repeat the previous steps to connect the server, clients, another hub (to Port 1), printer (with JetDirect card).

Cascading Hubs or Connecting a Hub to a Switch

You can connect hubs to other hubs or switches using a crossover or straight through connection.

Caution: **The cable length limit is 5m for the single cascade connection to another hub, as allowed by the 100Base-T topology rules.**

For a crossover connection connect the hub to another hub or switch using any hub port.

To allow a straight through connection to another hub or switch, you must use port 1 of one of the hubs and set the port mode to MDI.

The MDI switch is a black button on the hub's front panel (to the left of the RJ-45 ports). To set the mode button to MDI, push the button in.

Using a Single Hub

If you are only using a single hub, set port 1 to MDI-X, that is with the mode button

out. Port 1 now acts the same as the other ports. This is the default setting.

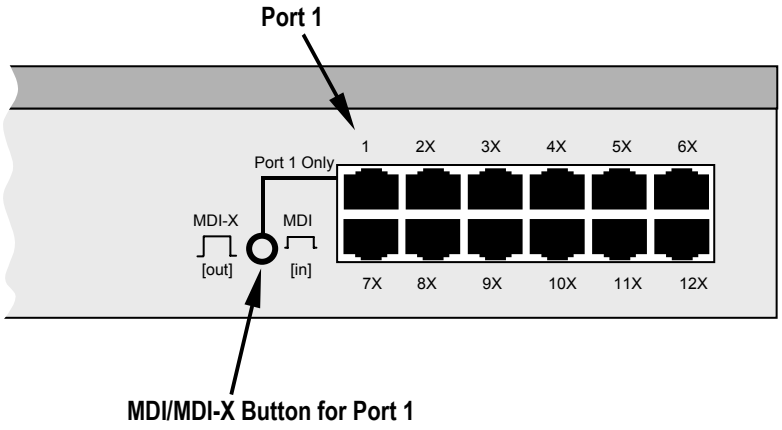


Figure 6-7 Hub MDI/MDI-X Button

Installing and Configuring Remote LAN Clients

A Remote LAN Client is an OB **TraceVue** PC that is connected to an OB **TraceVue** server that does not reside in the same physical network.

The Remote LAN Client can be an OB **TraceVue** client, external server, or WEB/Terminal server PC.

Remote LAN Clients operates in the same way as a "normal" OB **TraceVue** client.

Limitations and Prerequisites

Described in the ***Integration Guide***, chapter Network Guide. All requirements and pre-requisites must be fulfilled.

Installation and Configuration

Note — It is possible, but not mandatory, to install and configure a 2nd NIC in the OB **TraceVue** internal server and external server. See ***Second Network Interface Card*** on page 17-20.

Prepare Network

- Hospital IT department should set access control lists in a way that allows only the Remote LAN Clients to access the Internal and External OB **TraceVue** servers. Router ports must be configured as OB **TraceVue** gateway.
- Connect the OB **TraceVue** switch to the gateway (router port).

Prepare Internal Server PC

1. Assign the default gateway (IP address of router port).
   Control Panel → **Network Protocols and Dial up Connections** → **Local Area Connections** → **Properties** → **TCP/IP Protocol**
2. Start ***OB TraceVue Setup***.
   - Select ***Only change database settings or system settings.***
   - Select **Do not change system settings**.
   - **Configure IP Addresses of Servers for Remote Clients**: Enter the IP addresses of the NICs that are connected to the hospital network.
3. Restart OB **TraceVue**.

Prepare Remote LAN PC

1. If required, install the operating system[1]. See ***Windows 2000 New Installation***, ***Client Setup*** on page 17-7. Do **not** install the OB **TraceVue** software automatically.
2. Assign IP address, subnet mask, and default gateway (IP address of the connected router port). Do not use DHCP.

1. If the PC does not have a CD-ROM drive temporarily connect the PC to the same network segment as the OB **TraceVue** server PC.

Control Panel → **Network Protocols and Dial up Connections → Local Area Connections → Properties → TCP/IP Protocol**

3. Name resolution:

   Open **%windir%\system32\drivers\etc\hosts** and add the following line:

   <IP Address of Internal Server PC> <Internal Server PC Name>

   Example: 172.16.1.2 FR71900243

   It is also possible to use name resolution provided by hospital servers (e.g. WINS).

4. Connect the NIC to the hospital network.

Test the Connection

1. At the **Server** DOS prompt enter

   - **ping <*Client IP address*>**

     In case of problems try:
     - **ping <*OB TraceVue default gateway*>**
     - **ping <*HIS default gateway*>**

   - **tracert <*Client IP address*>**
     A route to the client must be found.

2. At the **Client** DOS prompt enter

   - **ping <*Server IP address*>**

     In case of problems try:
     - **ping <*HIS default gateway*>**
     - **ping <*OB TraceVue default gateway*>**

   - **tracert <*Server IP address*>**
     A route to the server must be found.

   - **ping <*Server name*>**
     The Server PC should reply properly. This verifies correct name resolution.

Install OB TraceVue at the Remote LAN PC

1. Install OB **TraceVue** from the local CD-ROM or at the internal server PC. If you are installing from the internal server PC, put the server CD in the CD drive. Copy the server CD to the server hard disk drive. The “setup” directory is on the server share. **\\server\TV2\setup**
2. Perform a complete new OB **TraceVue** setup.

   Note: You need to enter the server PC name manually; you cannot browse.

Note If the external IP addresses of the internal server or external server PC changed after Remote LAN Client installation you must reinstall OB **TraceVue** at the remote LAN client.

If setup finishes but reports an error when it tries to connect to the OB **TraceVue** server database try to ping the database:

dbping -c "CommLinks=tcpip{HOST=<*Server IP Address*>};ENG=<*Internal Server PC Name*>!"

(The last argument of this command is the DB service name, which is the internal server PC name appended with the uppercase letter I)

A connection to the database server should be established without error messages.

Patient Search Tool Network Configuration

Note This applies to systems linked with OB **TraceVue Link**.

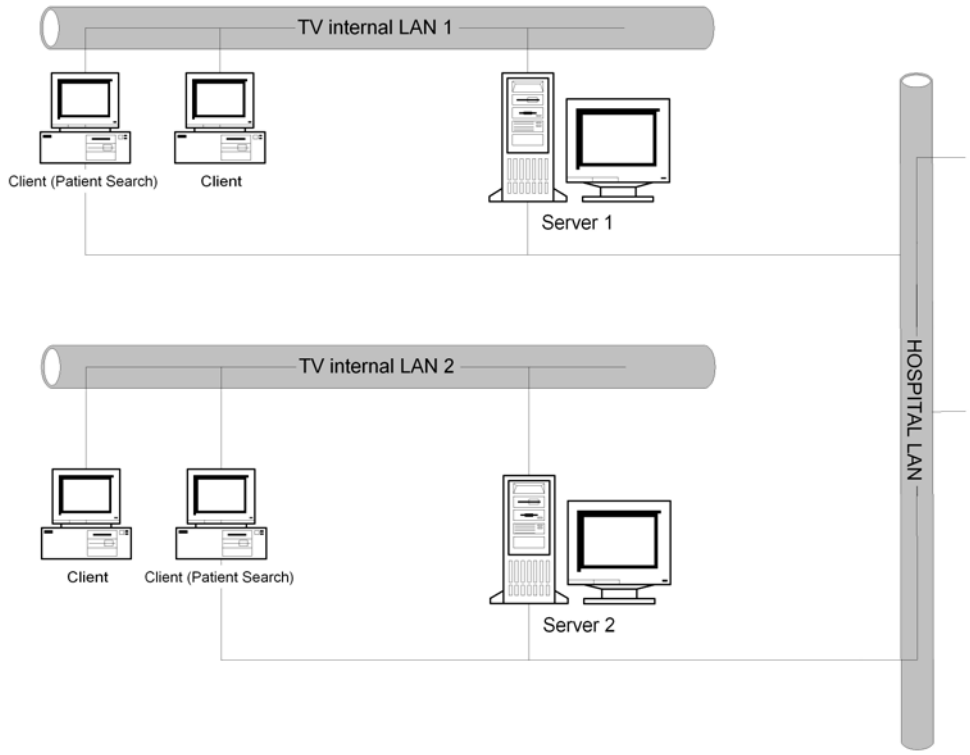
When using the Patient Search tool on linked systems it is necessary to have network connections between the PC running the Patient Search Tool and all internal server PCs.

Network Connection

There are two possible ways for this network connectivity:

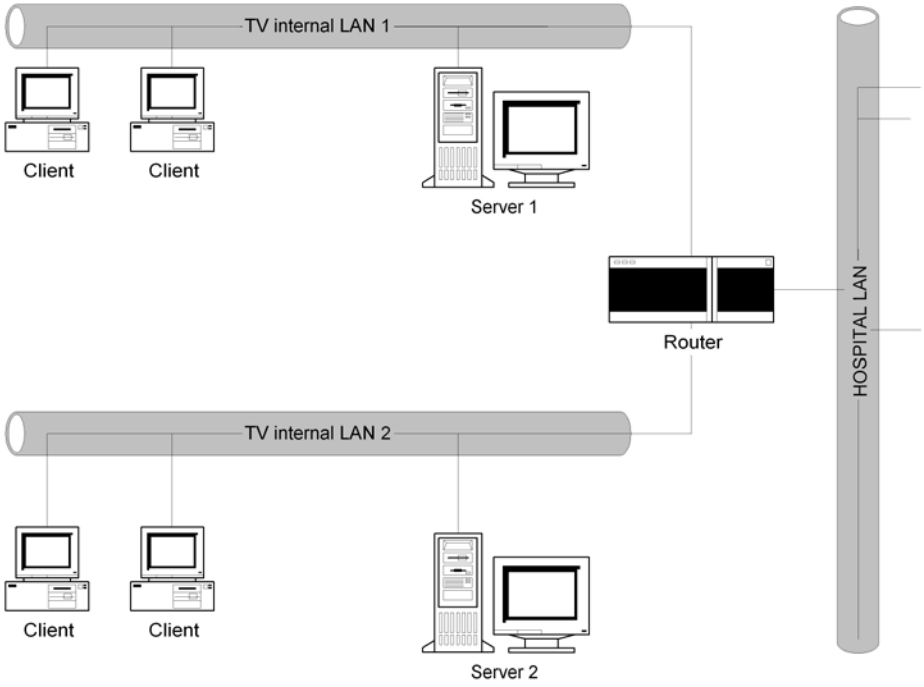
1. **Two Network Interface Cards**

   Install two NICs at the PCs running the Patient Search Tool and at all OB **TraceVue** internal server PCs.



2. **Hospital IP Addresses**

   Use hospital IP addresses at **all** OB **TraceVue** PCs. Install a router between the OB **TraceVue** networks. It is recommended to implement this solution in close coordination with the hospital IT-Department.



Configuration

1. Ensure that all OB **TraceVue** servers are up and running.
2. Start the Patient Search tool and log in.
3. Press **Configure Server List...**
4. Press **Add Server...**
   a. Type the Network PC name of the internal server to connect, optionally type the IP Address if the server resides in a different subnet. Press **Add**.
   b. Select the server in the list.
   c. Press **Test network connection**. This opens a window running a **tracert** command. If the command can access the server continue with the following steps, if not check your network setup.
   d. Press **Test Database Connection**. If successful a message box shows the system name of the connected server.
   e. Repeat the steps above to configure more servers.
5. Do a test search.

6. If successful press **Save Server List To File...** to save the server list to a registry file.
7. Copy the registry file to all other OB **TraceVue** internal servers.
8. At **all** PCs where the Patient Search tool must run:
   a. In the Windows Explorer double click the registry file to import the file into the local PC's registry.

      At client PCs you can access the file via the shared server drive **O:**.

   b. Start the Patient Search tool and do a test search.

Installing and Setting up a Serial Port Server

Introduction

A serial port server (SPS) supplies multiple asynchronous RS-232 serial ports through a TCP/IP network.

At the port server **host PC** a driver is installed that manages the conversion of the data back to RS-232 format and maps the port server port to a COM port of the host PC. A port server may be hosted at any OB **TraceVue** PC that allows the direct connection of fetal monitors: Standalone PC, Server PC or Client PC. SPSs may not be used with Kayak XA PCs. They require a VL400 PC or later model PC.

For system limitations regarding serial port servers refer to ***Serial Port Servers*** on page 4-9.

Caution: **Serial port servers must not be installed in the patient vicinity.**

Example Installation

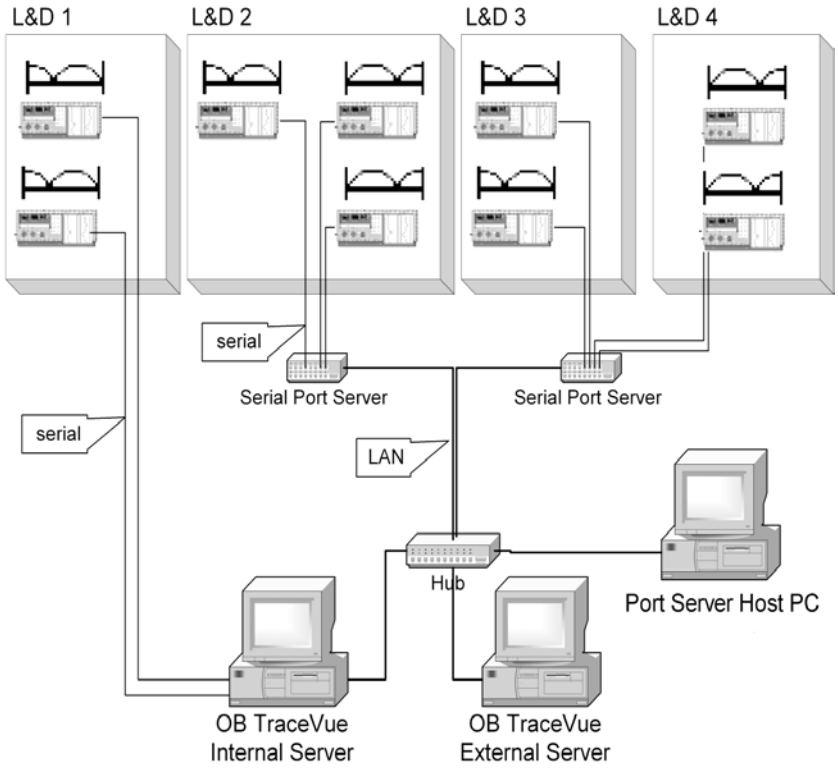


Figure 6-8 Example Serial Port Server Installation

Installation Tasks To install serial port servers you must perform the following steps:

Note You must log onto Windows as ***Windows administrator***.
You must not host different series of NPort servers **(DE-303 / DE-304 / DE-308 series and 5610 series)** at one PC simultaneously.

Step 1. Configure ***Host PC Network Settings***.

Step 2. Physically ***Connect Port Server*** to the network.

Step 3. Configure ***Port Server Network Settings***.

Step 4. ***Install Software***:

- ***NPort Server DE-303 / DE-304 / DE-308 series***
- ***NPort Server 5610 series***.

Step 5. ***Configure Serial Port Server*** (access control / ports):

- ***NPort Server DE-303 / DE-304 / DE-308 series***
- ***NPort Server 5610 series***

Repeat step 2 through 5 for each additional serial port server connected to the host PC.

Step 6. ***Configure OB TraceVue*** (serial ports, beds) at the host PC.

Repeat step 1 through 6 for each additional host PC.

Step 7. ***Connect Fetal Monitors*** to the serial port servers and ***Check Fetal Monitor to Bed Connection***.

Documentation It is strongly recommended to use the tables at the end of this section for documentation. Store the configuration sheets with all your other system documentation.

Host PC Network Settings

Serial port server host PCs must **not** operate as DHCP clients. They must have a **fixed** IP address.

Therefore, when hosting a serial port server at an OB **TraceVue client** PC you must change the network configuration of the client PC.

Caution: **Do not change the network settings of the OB TraceVue internal server PC.**

Only change network settings at OB TraceVue client PCs that act as serial port server host.

Start **Network and Dial-up Connection → Local Area Connection → Properties → Internet Protocol (TCP/IP) → Properties**.

Table 6-1 Host PC Network Settings

IP Address	Recommended range: **172.16.201.1** .. **172.16.201.254**
Netmask	**255.255.0.0**
Default gateway	*none*
DNS	*none*
WINS	*none*

IP Address when Installing Multiple Serial Port Server

When installing multiple serial port server it is strongly recommended to assign IP address ranges that reflect the connection between host PC and port server:

172.16.201.10 **172.16.200.10 .. 172.16.200.19**	first host PC serial port servers hosted by first host PC
172.16.201.20 **172.16.200.20 .. 172.16.200.29**	second host PC serial port servers hosted by second host PC
172.16.201.30 **172.16.200.30 .. 172.16.200.39**	third host PC serial port servers hosted by third host PC
...	**...**

Connect Port Server

Connect the Serial Port Server

The serial port server can be connected

- To the network via a network hub or switch.
  It is possible to connect the serial port server to the hospital network. In such a case the serial port server and the serial port server host PC must be connected to the same network segment (not routed).
- Directly to the network interface card of an OB **TraceVue** host PC using a cross-wired Ethernet cable (only **one** serial port server).

Caution: **The serial port server must be connected to a 100 Mbps network[1].**

Note You must use a fail-safe power supply for the serial port server and for the network hubs (e.g. UPS).
If the network connection between OB **TraceVue** PC and the serial port server has been interrupted you should reboot the OB **TraceVue** PC to reconnect.

Maximum Cable Length

To minimize side effects on the serial connection, the serial cable should be as short as possible, but the serial port server must **not** be installed in patient vicinity. The length is 100m per network node, plus 100m for RS232 connection to the fetal monitor.

See also ***Cable Specifications*** on page 6-11.

1. The network between serial port server, host PC, and internal server must be 100Mbps.

Port Server Network Settings

Network Settings

Serial port servers must have a **fixed** IP address. The following network settings must be used:

Table 6-2 Serial Port Server Network Settings

IP Address	Recommended range: **172.16.200.1** .. **172.16.200.254**
Netmask	**255.255.0.0**
DHCP	**disable**

Configuring Serial Port Server Network Settings (DE-303 / DE-304 / DE-308 series only)

Depending on the serial port server model you must use different methods when initially configuring the network settings. Once the port server has an IP address that can be reached in the OB **TraceVue** network you can use **telnet** with all models.

- **LCD Panel**
  a. Use the buttons on top of the port server to configure network settings.
  b. Follow the instructions given in the port server's user manual.
- **Telnet Console (no LCD panel available)**
  a. At the OB **TraceVue** host PC start `C:\DRIVERS\NPORTSRV\DE-30x\UPGRADE.EXE`.
  b. Note the IP address of the serial port server. The serial port server can be identified by it's serial number or MAC address.
  c. Exit **UPGRADE.EXE**.
  d. If the IP address of the serial port server is not within the OB **TraceVue** network address range (**172.16.x.y)** you must **temporarily** change the IP address of the OB **TraceVue** PC in order to access the serial port server.
     Example: If the default IP address of the serial port server is **192.168.n.m** change the IP address of the OB **TraceVue** PC to **192.168.x.y** (change only the first two numbers; avoid duplicate IP addresses). Do not change the subnet mask (**255.255.0.0**).
  e. Open a command prompt window, type **telnet <*IP address*>** where **<*IP address*>** is the IP address of the serial port server.
  f. Follow the instructions given in the port server's user manual (see *IP Address Configuration*).
  g. Restore the IP address of the OB **TraceVue** PC.
  h. Document the IP address and host PC of the serial port server using the table ***Serial Port Server Installation Documentation*** on page 6-37

IP Address when Installing Multiple Serial Port Server

See *IP Address when Installing Multiple Serial Port Server* on page 6-24.

Verify the Network Connection

At an OB **TraceVue** PC:

- Open a command prompt window.
- Type: **`ping <IP Address>`**
  where **`<IP Address>`** is the IP address of the serial port server.

The ping command must **not** report lost packets or time-outs. Otherwise check the network connection and the configuration of the serial port server.

Install Software

Note Do not use any floppy disks supplied with the serial port server.

NPort Server DE-303 / DE-304 / DE-308 series

A Windows device driver must be installed at the host PC for each serial port server hosted at that PC.

1. **Moxa NPort Server Device Driver Installation**

   a. Open the ***Control Panel***, start the **Add/Remove Hardware** wizard.

   b. Select **Add/Troubleshoot a device**. The computer searches automatically for new devices.

   c. From the list of devices select **Add a new device**.

   d. Select **No, I want to select the hardware from a list** to prevent the automatic search for new hardware.

   e. If driver is not installed on the PC (initial installation of a serial port server):

      i. In the **Hardware Type** dialog select **Other devices**.

      ii. In the **Select a Device Driver** dialog click the **Have Disk...** button, browse to **`C:\DRIVERS\NPORTSRV\DE-30x`**, select the file **`NPSERVER`**.

      iii. Select the appropriate driver from the list.

      If a driver is already installed on the PC:

      i. Open **Multi-port serial adapters**.

      ii. Select the appropriate device driver.

   f. In case that Windows displays a warning dialog (**Cannot find a digital signature**) click **Yes** to continue.

   g. The driver detects connected port server devices. Select the port server you want to install. Identify the port server by the displayed IP address. **If installing multiple serial port server at the same host PC be sure not to install the same physical port server again.**

2. **Communication Port Driver (first port server only)**

   h. Windows automatically detects the new serial ports of the serial port server and starts the **Found New Hardware** wizard.

   i. Select **Search for a suitable driver for my device**.

   j. Select **Specify a location** (deselect all other items).

   k. In the dialog, enter the location of the driver: **`C:\DRIVERS\NPORTSRV\DE-30x`**.

NPort Server 5610 series

Run **`C:\Drivers\NPortSrv\5x10\setup.exe`**. Click through the wizard and keep all default settings. This will install the **NPort Administration Suite** and necessary drivers.

Configure Serial Port Server

NPort Server DE-303 / DE-304 / DE-308 series

Configure Access Control List

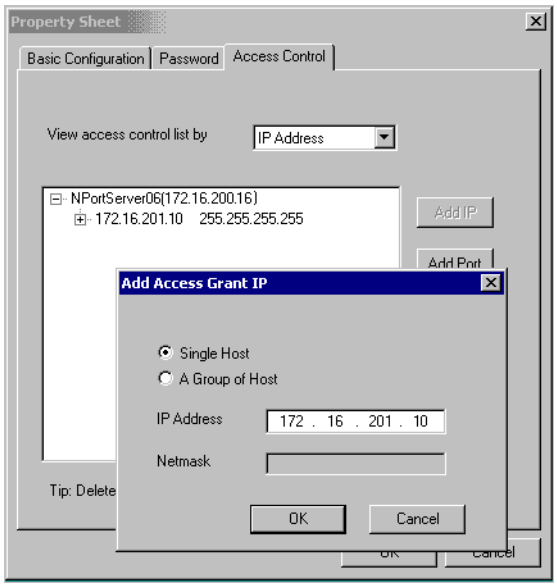
The serial port server maintains a list of known host PCs (access control list) that are allowed to connect to the device.

To avoid simultaneous access of 2 PCs to one serial port server

- only the OB **TraceVue** host PC of the serial port server must be registered in the access control list
- the access grants must be set to **Single Host**.

To configure the access control list

1. Open ***Device Manager*** → **Multi-port serial adapters.**
2. In the list of devices, double-click the appropriate serial port server.
3. Select **Configuration** → **Settings** → **Access Control**.
4. Verify that you are working on the correct serial port server device (check port server name and IP address).
5. Select **View access control list by: IP Address**
6. **Required Settings**
   - **Only** the IP address of the OB **TraceVue** host PC must be listed
   - The netmask must be **255.255.255.255** (**Single Host**)

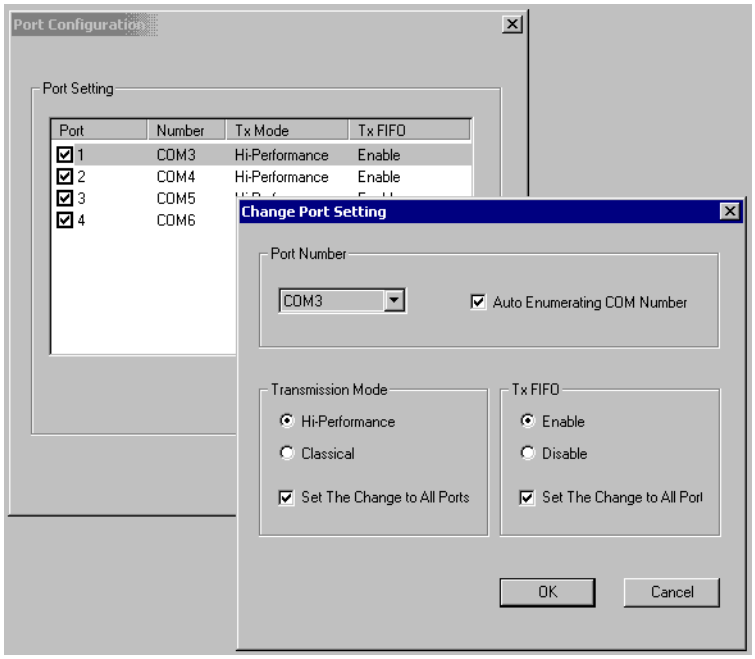


Configure Ports

The port configuration determines which ports of the serial port server(s) are mapped to which COM ports on the host PC.

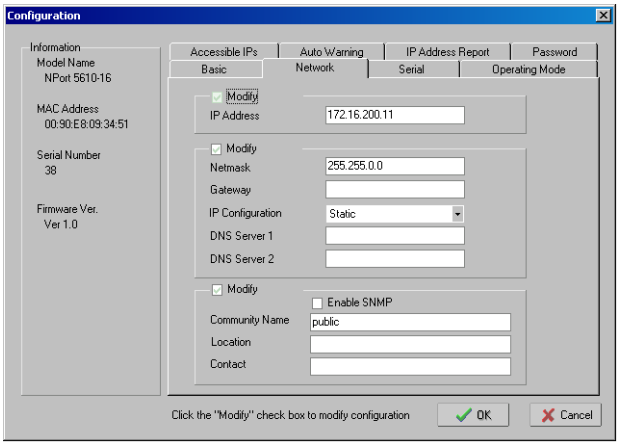
- **Check COM ports**
  To ensure that there is no conflict between COM ports:
  a. At the port server host PC open ***Device Manager*** → **Ports (COM & LPT)**.
  b. Check whether serial port server ports [**Moxa Communication Port x (COM y)**] conflict with built-in COM ports [**Communications Port (COM z)**] or other port server ports.

- **Configure port server ports**
  In case of duplicate COM ports or if you want to change COM port assignment for other reasons:
  a. Open ***Device Manager*** → **Multi-port serial adapters.**
  b. In the list of devices, double-click the appropriate serial port server.
  c. Select **Configuration** → **Ports Settings**.
  d. To change port settings for all ports select the **first** serial port, and click **Modify settings**.
  e. In the **Change Port Setting** dialog adjust the port numbers. Do **not** change any other settings.
  f. Ensure that the port server ports do not conflict with build-in COM ports.
  g. Document port settings using the table ***Serial Port Server Host PC Installation Documentation*** on page 6-39.



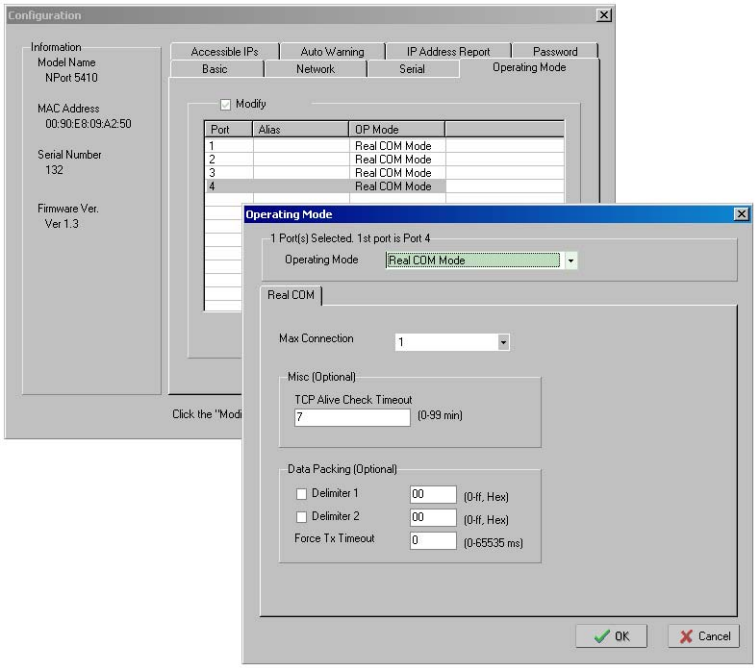
NPort Server 5610 series

- Open **Start** → **NPort Administration Suite** → **NPort Administrator**.
- Select **Configuration** → **Broadcast Search**.
  You get a list of all NPort 5610 series devices.
- Double-click each port server to enter the configuration screen:
  - **Basic**
    enter a descriptive name for the serial port server (no blanks)
  - **Network**
    - enter a IP Address and Netmask (see ***Port Server Network Settings***)
    - disable SNMP if not needed

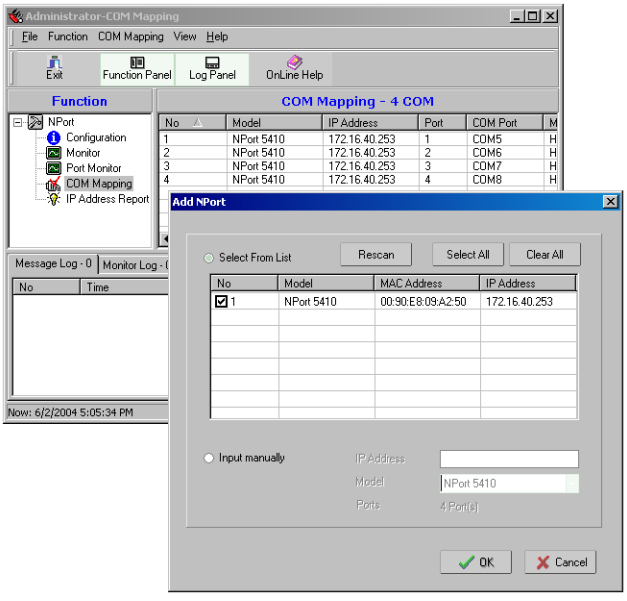


  - **Operating Mode**

for each port, select **Real COM Mode**, keep the default settings of **Real COM** attributes.



- Select: **COM Mapping → Add Target**
  this allows you to map a port of the serial port server to a local COM port number



- Exit the NPort Administrator tool
- ***Verify the Network Connection*** using **ping**.

Note The COM ports are not visible in the Windows Device Manager.

Configure OB TraceVue

1. Verify Basic Serial Connection

Start the FMSpy (see ***Fetal Monitor Spy (FMSpy)*** on page 14-14) and select a mapped COM port. Start data transmission for this connection and check that data can be received.

2. Setup Serial Ports

Run the OB **TraceVue** setup on the host PC for the serial port server. In the setup program the COM ports can be selected as usual.

Run the OB **TraceVue** Setup:

- Only change database settings or system settings
- **Do not change system settings (no password required)**.
- Check **Define port settings**.

If not all COM ports are available verify the driver settings and check the access control lists. Restart the PC and run setup again.

3. Assign Beds

a. Start OB **TraceVue**.

b. In Fetal Monitor Setup assign the available ports to OB **TraceVue** beds. **COM 1** .. **COM4** are listed as **FM 1 (A)** .. **FM 4 (D)**, all other ports as **FM x**.

Connect Fetal Monitors

Depending on the serial port server model different connectors are required for the RS-232 cables: See the Site Preparation Guide for pin assignments and cable layout is

Table 6-3 Serial Port Server RS-232 Connectors

Port Server	Number of Ports	RS-232 Connector	Remarks
5610-8	8	RJ45-8	
5610-16	16	RJ45-8	
DE304	4	9 pin SUB-D	standard RS232 cable
DE308	8	RJ45-10	
DE309	16	RJ45-10	

Use adapter M1380-60611 for every fetal monitor connected to a 5610 SPS.

Check Fetal Monitor to Bed Connection

Perform the test described in Chapter 2, ***Safety***, ***Performance Serial Port Server on page 2-9***.

Using the Serial Port Server at a Different PC

NPort Server DE-303 / DE-304 / DE-308 series

1. On the **old** host PC
   a. Uninstall the device driver:
      i. Open ***Device Manager*** → **Multi-port serial adapters**.
      ii. Select the serial port server device driver and select **Action** → **Uninstall**.
   b. Run OB **TraceVue** setup to remove the serial port server ports.
   See also ***Configure OB TraceVue*** on page 6-34, step 2.
   c. Start OB **TraceVue** and check port to bed assignment.
   See also ***Configure OB TraceVue*** on page 6-34, step 3.
2. On the **new** host PC
   a. Install the device driver on the *new* host PC. See ***Install Software***, ***NPort Server DE-303 / DE-304 / DE-308 series*** on page 6-28.
   b. Check the access control list and check the port mapping of the serial port server. See *NPort Server DE-303 / DE-304 / DE-308 series* on page 6-29.
   c. Configure OB **TraceVue**. See ***Configure OB TraceVue*** on page 6-34.
   d. Check Fetal Monitor → bed connection. Perform the test described in **Chapter 2, *Safety*, *Performance Serial Port Server on page 2-9*.**

NPort Server 5610 series

1. On the **old** host PC
   a. Open **Start** → **NPort Administration Suite** → **NPort Administrator**.
   Select **COM Mapping**, select the serial port server and **Remove Target**.
   b. Run OB **TraceVue** setup to remove the serial port server ports.
   See also ***Configure OB TraceVue*** on page 6-34, step 2.
   c. Start OB **TraceVue** and check port to bed assignment.
   See also ***Configure OB TraceVue*** on page 6-34, step 3.
2. On the **new** host PC
   a. Install the software (see ***Install Software***, ***NPort Server 5610 series*** on page 6-28)
   b. Configure the serial port server (see *NPort Server 5610 series* on page 6-31) and check the port mapping.
   c. Configure OB **TraceVue**. See ***Configure OB TraceVue*** on page 6-34.
   d. Check Fetal Monitor → bed connection. Perform the test described in **Chapter 2, *Safety*, *Performance Serial Port Server on page 2-9*.**

Replacing a Serial Port Server

NPort Server DE-303 / DE-304 / DE-308 series

To replace a serial port server you must perform the following steps:

Step 1. Physically connect the new port server device to the network. See ***Connect Port Server*** on page 6-25

Step 2. Configure the network settings of the serial port server. See ***Port Server Network Settings*** on page 6-26.

The new serial port server must use the same IP Address as the defect port server. See ***Serial Port Server Installation Documentation*** on page 6-37.

Step 3. Configure the serial port server (access control / ports). See ***Configure Serial Port Server***: ***NPort Server DE-303 / DE-304 / DE-308 series*** on page 6-29.

The new must be hosted at the same host PC as the defect port server. See ***Serial Port Server Host PC Installation Documentation*** on page 6-39.

Step 4. Connect the fetal monitors to the serial port servers and check the connections.

NPort Server 5610 series

To replace a serial port server you must perform the following steps:

Step 1. Physically connect the new port server device to the network. See ***Connect Port Server*** on page 6-25

Step 2. Open **Start** → **NPort Administration Suite** → **NPort Administrator**.

- Select **COM Mapping**, select the old serial port server and **Remove Target**.
- Select **Configuration** → **Specify by IP Address**. Enter the IP Address of the new serial port server device.

Step 3. Configure the serial port server (access control / ports). See ***Configure Serial Port Server***: ***NPort Server 5610 series*** on page 6-31.

The new must be hosted at the same host PC as the defect port server. See ***Serial Port Server Host PC Installation Documentation*** on page 6-39.

Step 4. Connect the fetal monitors to the serial port servers and check the connections.

Serial Port Server Installation Documentation

List all serial port servers and their OB **TraceVue** host PC.

Date: _____

Table 6-4 Serial Port Server Installation Documentation

Port Server		OB TraceVue Host PC		Location/Remarks
Name	**IP Address**	**Name**	**IP Address**	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	
	___.___.___.___		___.___.___.___	

This page intentionally left blank.

Serial Port Server Host PC Installation Documentation

Use one page for each serial port server host PC.
List all serial port servers hosted at the PC and all port server ports mapped to local COM ports.

Date: _____

PC Name: _____ Location:_____

IP Address: _____

Table 6-5 Serial Port Server Host PC Installation Documentation

Port Server		Mapped to COM	Remarks
Name	**Port**		

This page intentionally left blank.

Setting Up a Printer

You can connect one printer to the system.

Note Additional printers can be used, but setup, driver installation, and support is the customer's responsibility.

Alternative printers (different model than shipped with OB **TraceVue**) can also be used.

Because of the different drivers this is considered 3rd-party integration as described in the ***Integration Guide***. The customer is responsible for setup, driver installation, support and integration test of alternative printers.

You can connect a printer to:

- A parallel printer port.
- The network by using an HP JetDirect card.

Note Do **not** connect a printer to a client PC in the patient vicinity.

Windows printer types:

- A **local** printer is installed on one PC.
  - The PC runs the print spooler for the local printer and communicates with the printer using the parallel port or the network. A local printer can be shared so it can be accessed from other PCs.
  - **Local printers are PC specific (available to all users registered to the PC)**.
- A **network** printer is a **shared** printer.
  - On the PC that runs the print spooler for the network printer it appears as local printer.
  - For all other PCs the printer can be accessed via the network. It is sufficient to *connect* to that printer**.**
  - **Shared printers are user specific (need to be added for each user)**.

Note Shared printing has an impact on the performance of the PC running the shared printer spooler if several print jobs are running.

If possible you should install the shared printer on a **client without data acquisition** or on the **External server PC**.

The print-server PC must be up and running 100% of the time.

Avoid installing the shared printer on the internal server PC.

General Printer Setup Procedures

Note You must log on as ***Windows administrator*** to install a printer.

Creating a Local Printer

- Start the ***Add Printer*** **Wizard**.
- Select **Local printer**.
- Select an appropriate printer port.
- Select the printer from the lists of **Manufacturers** and **Printers**.
  To select a printer not supplied by Windows click **Have Disk...**.
  Printer drivers installed with OB **TraceVue** are in the directory **C:\DRIVERS\PRINTER**.
- Enter an appropriate **Printer name**.
- Select the printer to be the default printer.
- If the printer is to be shared: Enter an appropriate **Share Name**.

Connecting to a Shared Printer

- Start the ***Add Printer*** **Wizard**.
- Select **Network printer**.
- Follow the on-screen instructions

Setting up a Printer

- Right-click the printer you want to set up, select **Printing Preferences**.
- To set the appropriate paper size click the **Advanced...** button.

Sharing an Existing Printer

- Right-click the printer you want to share, select **Sharing...**
- Enter an appropriate **Share Name**.

Printer Connected to a PC's Parallel Port

Note At the PC to which the printer is connected, make sure the parallel printer port is enabled and unlocked. Refer to the *BIOS Settings* for the PC model you are installing.

Follow the procedures described in ***General Printer Setup Procedures*** on page 6-42. When creating a printer select the **LPT1** printer port.

Printer Connected to the Network using a HP JetDirect Card

Overview To use a network printer you must

- ❑ Install Network Printer Hardware.
- ❑ Install DLC protocol (optional if you want to use DLC printing).
- ❑ Add and Configure the JetDirect Port.

After that follow the procedures described in ***General Printer Setup Procedures*** on page 6-42. When creating a printer select the appropriate **network printer port**.

Installation and Configuration

1. Install the Network Printer Hardware

a. Install the JetDirect card in the printer.

b. Refer to the *User Manual* supplied with the printer to print the printer's configuration. This includes information you will need later, such as the JetDirect Card's LAN HW (hardware) address.

c. Connect the printer to a network port on the hub using Ethertwist cable with RJ-45 connectors. This uses one port on the hub, which is no longer available for connection to another hub, PC, or network printer.

2. Configure Printer Configuration Menu

Set/confirm the following protocol settings in the printer configuration menu. You must do this online at the printer.

TCP/IP	set to on (enabled)
IPX/SPX	set to off (disabled)
AppleTalk	set to off (disabled)
DLC/LCC	set to on (ready)

3. Print Configuration Settings

- At the printer go to **Printer Menu** → **Information Menu** → **Print Configuration**

Connect Printer Using DLC

1. Install the DLC Protocol (on one PC only)

If the network printer is set up as shared printer, follow the recommendations regarding shared printers in the ***note*** on page 6-41.

You should document which PC has DLC installed for future reference.

a. Right-click **My Network Places**, select **Properties**.

b. Right-click **Local Area Connection**, select **Properties**.

c. Install the **DLC Protocol**.

2. Add and Configure a HP JetDirect Port (PC where DLC is installed)

a. Start the **Add Printer Wizard**.

b. Select **Local printer**.

c. In the **Select Printer Port** dialog:

- Click **Create a new port**. Type: **Hewlett-Packard Network Port.**
  (Only visible if DLC has been installed)
- In the **Add Peripheral Port** window:
  Click **Refresh** to detect the LAN hardware address for the printer. The hardware address must be the same hardware address which is shown on the printer's test printout sheet under the field LAN Hardware Address. If you do not see the address, do not type it in because something is probably wrong and the connection may not work.
- Enter a network port **Name**.
- Click the **Timers** button.
  Set the connection to **Job based**.
  Set the **Status Update Interval** to 30 seconds.

Connect Printer Using TCP/IP

1. Reserve IP Address on the DHCP Server PC (if the printer is configured for DHCP)

To prevent the DHCP server offering different IP addresses to the printer the printer IP address has to be reserved. To do this:

a. Open ***Administrative Tools*** → DHCP.

b. Check if the printers' IP address is in the list of Address Leases.

c. Select **Reservation → New Reservation...**

d. Enter the information (see printer configuration printout):

- **Reservation Name**: *<Host Name>*
- **IP Address:** *<IP Address>*
- **MAC Address**: *<MAC Address>*
- **Description**: Printer

2. **Add and Configure a TCP/IP Port (on one PC only)**
   a. Start the ***Add Printer*** Wizard.
   b. Select **Local printer**.
   c. In the **Select Printer Port** dialog:
      - Select **Create a new port**. Type: **Standard TCP/IP Port**.
   d. In the TCP/IP Printer Port Wizard:
      - Enter the IP Address of the printer.
      - Finish the Printer Port Wizard.
   e. If you have a default OB **TraceVue** Printer
      - select **Have Disk...**
      - Browse to **C:\DRIVERS\PRINTER\<*Name*>** to get the correct driver.

      Otherwise select the printer model from the displayed list.
   f. You may share the printer to have easier access from other OB **TraceVue** PC.

Printing on WEB Client PCs

Due to a Windows limitation it may be necessary to install required printer drivers on the **WEB/Terminal Server** PCs as well as on **Web Clients** PC's to support printing from OB **TraceVue** on Web Client PCs.

Setting Up Remote Connectivity

This section details setting up remote access to OB **TraceVue** for remote trace transmission, remote support purposes, and for transmitting faxed traces.

Note The customer site requires at least one dedicated analog (not digital) telephone line. It is recommended to have a second phone line installed near the PC where the remote support modem is installed for voice communication between the Response Center and customer.

It is recommended that you use a modem with a connection speed of at least 28k.

Setting up Remote Trace Transmission

- Connect the modem(s).
- Do **not install** a modem device driver.
- Run OB **TraceVue** setup. Define **Remote Monitor** port settings. See also ***Fetal Monitor Connections (Ports)*** on page 16-6.

Note Do not connect remote trace transmission modems to a serial port server.

Setting up Web Access Through Dial-Up Modem

- **At the WEB/Terminal server:**
  Install the modem and configure an **incoming** connection.
- **At the WEB client:**
  Install the modem and configure an **outgoing** connection.

For details see ***Installing a Modem*** on page 6-48.

To start an OB TraceVue WEB client:

At the WEB client PC

- establish a connection to the WEB/Terminal server (dial)
- start Windows Internet Explorer
- enter **http://<*ip address*>** or **http://<*server name*>**

Setting up Remote Access Support

Refer to ***Remote Support Using Terminal Services*** on page 9-3.

Setting Up Fax Transmission

- Install the modem.

When installing a modem a fax printer driver is installed automatically. Use the “Fax” printer from OB **TraceVue** to fax traces or documents.

Configure the Fax

- In the **Printers** dialog right-click the Fax printer, select **Properties**.

To set the appropriate paper size click the **Printing Preferences...** button

Installing a Modem

Note You must log on as ***Windows administrator*** to install a modem.

You must install and configure a modem device in order to use

- OB **TraceVue** Web Access (through dial-up modem)
- Remote Access Support
- Fax transmission

Note You must **not** install and configure a modem device driver for modems used with remote trace transmission.

Adding the Modem Device

1. Connect modem to PC with modem serial cable and turn modem on.
2. Open ***Control Panel***, select **Phone and Modem options**.
3. Select the **Modem** tab.
4. Select **Add...**
5. Follow the instructions on screen.

Configure the Modem

1. Open ***Control Panel***, double-click **Phone and Modem options**.
2. Select your country/region location and enter your area code and outside line dialing code.

Configure Outgoing Connections (Windows 2000)

By creating an **outgoing** connection, a computer can **connect to** a remote access server. An outgoing connection is required for Fax transmission, Remote Access Support (support office) or WEB client.

1. Open **Network and Dialup Connections** (Control Panel).
2. Click **Make New Connection** to start the Network Connection Wizard.
3. Select **Dial-up to private network**.
4. Follow the instructions on screen.
5. **User name**: user **Password**: user
6. Enable **Routing and Remote Access Service** (see ***Enable Routing and Remote Access Service*** on page 6-49.

Configure Incoming Connections

By creating an **incoming** connection, a computer can **act as** a remote access server. An incoming connection is required for OB **TraceVue** Web Access (through dial-up modem) at the WEB/Terminal server and for Remote Access Support (customer's site).

1. Open **Network and Dialup Connections** (Control Panel).
2. Click **Make New Connection** to start the Network Connection Wizard.
3. Select **Accept incoming connection**.
4. Select **Allow virtual private connections**.
5. **Users allowed to connect**: user.
6. Follow the instructions on screen.
7. Enable **Routing and Remote Access Service** (see ***Enable Routing and Remote Access Service*** on page 6-49)

Enable Routing and Remote Access Service

1. Right-click the **My Computer** icon on the Windows desktop and select **Manage**.
2. Select **Services and Applications** in the left tree view.
3. Select **Services**.
4. Select **Routing and Remote Access**, set the Startup Type to **Automatic**.

Installing Microsoft Office 2003

Caution: **Microsoft Office must not be installed at the internal server PC.**

Install Software

Caution: **Do not install other Office versions than Office 2003.**
Do not mix Office versions within one OB TraceVue system.

Manual Installation

1. Logon as ***Windows administrator***.
2. Start the MS Office2003 installation:
   - WEB/Terminal Server PC
     MS Office must be installed from CD using **Add/Remove Programs**. Do **not** use the Explorer to start **Setup**.
   - Other PCs:
     Start **Setup** on the MS Office CD.

   Follow the on-screen instructions.
3. Enter the product key, which can be found on the back of the CD cover.
4. Enter user name and initials when prompted.
5. Select **Custom Install**.
6. Select Word and Excel. Disable all other Office applications.
7. Click **Install**.

Automatic Installation

At the end of a complete installation of the external server (including operating system) the OB **TraceVue** setup asks for the Office CD.

1. Put the Office CD into the CD-ROM drive when prompted.
2. Start Word after the installation has completed and enter product key, which can be found on the back of the CD cover.

Final Tasks After the office installation (manual or automatic) you must perform the following steps:

1. **WEB/Terminal Server Only**

   a. Logon to Windows as **OBTV Administrator.**

   b. Start the Windows Explorer, go to **Tools** → **Folder Options** → **View**. Select **Show hidden files and folders**.

   c. Modify the security rights for the directory `C:\Documents and Settings\All Users\Application Data\Microsoft\Office\Data`.

   Add **Full Control** for **Everyone**.

   See also ***Microsoft Knowledge Base Article - 828955***.

   Note: Installing and operating Microsoft Office 2003 on a Web/Terminal Server requires you to be compliant with MS Licensing for Terminal Servers. For details please refer to Microsoft Corp.

2. **Activate Office and Install Security Updates**

   a. Logon to Windows as **OBTV Administrator.**

   b. Start Word.

   c. Accept End-User-License Agreement when prompted.

   d. Activate Office. Follow the on-screen instructions.

   e. Close Word.

   f. If re-installing the external server PC, now ***Install Security Updates*** (see page 6-52) on it.

3. **Set Macro Security and AutoRecover Time**

   Perform the followings steps for **OBTV Administrator**, **User** and **all** other[1] Windows users granted access to MS Office:

   a. Logon as Windows user (**OBTV Administrator**, **User**, ...)

   b. ***Set Macro Security***.

   c. ***Set Auto Recovery***.

1. Including the terminal services logon user if you want to allow access to MS Office on WEB client PCs (see ***Terminal Services Configuration*** on page 17-16)

Installation Tasks

Install Security Updates

The required updates are available on the client CD-ROM: **`\Utilities\MSOffice2003`** (English versions only).

You can download localized versions of the security updates from the Microsoft WEB server:

- ***Office 2003 Critical Update: KB828041***
- ***Word 2003 Update: KB830000***

Installation

Double-click

- **`Office2003-kb828041-client-`*`xxx`*[1]**`.exe`**
- **`Office2003-kb830000-client-`*`xxx`*`.exe`**

Set Macro Security

Must be done for Microsoft Word and Excel.

1. Go to **Tools** → **Macro** → **Security**.
2. In the **Security** dialog set the **Security Level** to **Low**.
3. Click on the tab **Trusted Sources**.
4. Activate the checkboxes
   - **Trust all installed add-ins and templates**.
   - **Trust access to Visual Basic Project**.
5. Click **OK**, close Word / Excel.

Set Auto Recovery

Must be done for Microsoft Word and Excel.

1. Go to **Tools** → **Options**.
2. In the **Save** dialog set **Save AutoRecover info every:** to 45 minutes.

1. Replace by language ID (for example, English= **`enu`**)

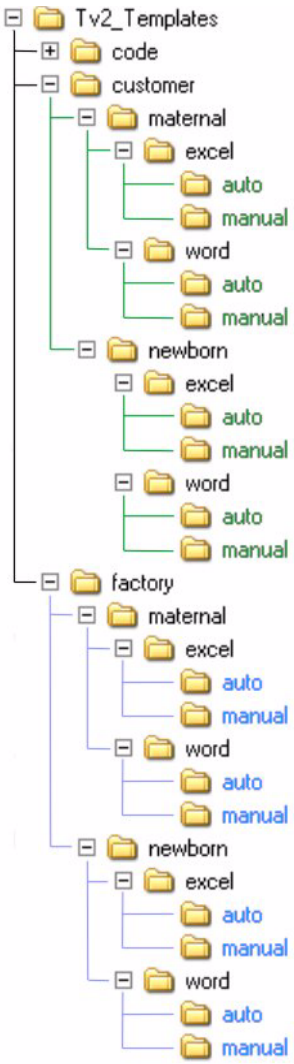
Installing Word and Excel Templates

Overview

Prerequisites

- OB **TraceVue** must be installed with the External Database option.
- Microsoft Office must be installed, see ***Installing Microsoft Office 2003***.
- You must be able to access the templates share (**<*server*>\OBTVTemplates**). The templates share is **C:\Tv2_Templates** at the internal server PC.

Directory Structure



The initial installation of OB **TraceVue** installs templates and other files required for Word documents and Excel statistics in the **C:\Tv2_Templates** directory on the Internal Server PC. This directory is shared as **OBTVTemplates**.

..\code

- templates, macros and binary files for template support
- do not modify the contents of this directory

..\factory

- directory for factory-provided templates
- contents may be overwritten or modified by future OB **TraceVue** releases
- do not modify the contents or store customized templates in this directory

..\customer

- directory for templates accessible by the printing module
- directory for customized templates
- contents will not be overwritten or modified by future OB **TraceVue** releases

..\maternal	directory for templates used in maternal mode
..\newborn	directory for templates used in newborn mode
..\..\excel	Excel templates (***.xlt**)
..\..\word	Word templates (***.dot**)
..\..\..\auto	files in print in the background
..\..\..\manual	files open Excel or Word

Template Revisions

Template	Latest layout change released with OB TraceVue Rev. ...
Reports	
Admission.dot	D.01.00
Antepartum.dot	D.01.00
Discharge.dot	D.01.00
DischargeRecord.dot	D.01.00
DischargeSummary.dot	D.01.00
FCAssessByTime.dot	D.01.00
FCAssessByType.dot	D.01.00
Inpatient Postpartum.dot	D.01.00
Labor and AlternateDelivery.dot	D.01.00
Labor and Delivery.dot	D.01.00
Labor&Delivery.dot	D.01.00
ObstetricAdmit.dot	D.01.00
PatientsPregnancyEpisodes.dot	D.01.00
PostpartumVisit.dot	D.01.00
PostpartumVisits.dot	D.01.00
ProgressNotes.dot	D.01.00
Teaching.dot	D.01.00
NurseryAdmission.dot	New with D.01.00
NurseryDischargeRecord.dot	New with D.01.00
NurseryFCAssessByTime.dot	New with D.01.00
NurseryFCAssessByType.dot	New with D.01.00
Statistics	
Admission Log.xlt	D.01.00
Chalkboard.xlt	New with D.01.00
Delivery Log.xlt	New with D.01.00
Discharge Log.xlt	D.01.00
Fetal Death Log.xlt	D.01.00
Labor&Delivery Log.xlt	D.01.00
Live Birth Log.xlt	D.01.00
NurseryAdmission Log.xlt	New with D.01.00
NurseryDischargeLog.xlt	New with D.01.00
Obstetric Statistics.xlt	D.01.00
Open Cases 12 Month.xlt	D.01.00
Open Pregnancies.xlt	D.01.00
Patient Creation Log.xlt	D.01.00
Perinatal Death Log.xlt	D.01.00
Providers Log.xlt	D.01.00
Regular Admin Statistics.xlt	D.01.00
Scheduled Log.xlt	D.01.00
Stillborn Log.xlt	D.01.00
SystemAuditTrail Log.xlt	New with D.01.00
Transfer Log.xlt	D.01.00
Undelivered Log.xlt	D.01.00
Yearly Admin Statistics.xlt	D.01.00
Zip Log.xlt	D.01.00

New Installation

Only templates stored in the **auto** and **manual** subdirectories of **C:\Tv2_Templates\customer** can be selected in the OB **TraceVue** printing module. These directories are empty after new installation.

You must therefore copy the factory provided templates the customer wants to use from **C:\Tv2_Templates\factory** to **C:\Tv2_Templates\customer**.

7 Troubleshooting

Networking and System Setup Problems

Check for all applicable service notes when troubleshooting problems.

Table 7-1 Setup and Startup Problems

Problem	Explanation	Problem Verification	Remedy
Windows Setup Program hangs in the last menu and doesn't finish.	Windows Network-protocol software is not complete, or is incorrectly installed.	Check the list of installed drivers. Select ***Control Panel***, open **Network** and ensure that the following are present: ■ Services: ❑ Computer browser ❑ NetBIOS interface ❑ RPC configuration ❑ Server ❑ Workstation ❑ Microsoft DHCP server (on internal server) ■ Protocols: ❑ TCP/IP protocol ❑ NetBEUI protocol ■ Adapters: ❑ appropriate network adapters	Reinstall Windows operating system
After new installation of the operating system at the server PC **Setup** fails at the client PCs.	DHCP scope not created. If the server is not connected to the network during installation the DHCP scope is not created.	Check if the server's **first** NIC is connected to the network.	Manually configure DHCP. See ***DHCP Server Configuration on page 17-15***.
OB **TraceVue** does not start, system gives message: **setup not complete**	Setup program has been started then cancelled.		Rerun **Setup** from the **Support** menu group (no CD-ROM required). Step through all menus, enter the appropriate parameters.
OB **TraceVue** does not start at Server PC.	Wrong SCSI address at archive drive.	Check **Windows Explorer** and see if the connection to the drive is established.	Power off the server and archive drive, set the archive drive SCSI address, mode as appropriate for the PC type. Power on archive drive then restart the PC.
OB **TraceVue** does not start at Server PC (no storage). The progress bar goes to 75% and then moves backwards again.	**Storage** is defined in **setup**, but this is a non storage system.	Check the **installation record** for **storage** definition.	Run **setup** again, deselect the **storage** option.
OB **TraceVue** does not start at Server PC (no storage). The progress bar goes to 75% and then moves backwards again.	Controller does not see devices.	Check in **Windows Explorer**.	If the devices are not displayed in Windows Explorer, check the cabling, power supply etc., and reboot the PC
OB **TraceVue** does not start at Server PC (storage system).	Optical drives were removed	Start ***Device Manager***. Non-existing devices are marked with a red-crossed icon.	Remove non-existing devices.

Table 7-1 Setup and Startup Problems

Problem	Explanation	Problem Verification	Remedy
OB **TraceVue** Client won't start - goes into shutdown immediately then hangs with message: **Wait until system writes unsaved data**	OB **TraceVue** not running at server.	Check server.	Start OB **TraceVue** at server.
Client does not connect to server.	1. Physical connection interrupted. 2. Server not working 3. Wrong client PC name. 4. Share on Server not established.	1. Check Switch. 2. Check Server. 3. Check PC names - use **Control Panel/Network**. 4. Check share with **Windows Explorer**.	1. Adjust workgroup name. 2. Start server before clients. 3. Adjust PC names. 4. Establish server share.
OB **TraceVue** does not start after changing a PC name.	You didn't run OB **TraceVue** setup after changing the PC name. The new PC name must be entered into the database.	Check the installation record (**OB TraceVue Support** group icon). This shows the PC name used by OB **TraceVue**.	Power off, restart the PC, re run **OB TraceVue Setup**. Do not accept defaults, enter the correct parameters.
Windows hangs at server during startup, showing a blue screen.	Possible hardware problems, such as overheating.	CD-ROM light keeps flashing.	Open CD-ROM drive, restart PC. Check devices.
Windows aborts in blue screen.	Hardware incompatibility problems.	Check hardware and external devices such as adapter cards for version and compatibility.	Disconnect CD-ROM, restart. Reinstall Windows. Fix hardware problems.
Windows runs **CHKDSK** (CheckDisk) automatically.	File corruption detected and will be corrected automatically by **CHKDSK**.		Wait until **CHKDSK** has finished. If **CHKDSK** scans the archive media it can take over 20 minutes.
SHUTDOWN (Server hangs)	One of the clients is waiting for input (such as acknowledgment of error-message).	Check clients.	Acknowledge dialog-box at all clients.
LIGHTPEN is offset; calibration does not re-adjust.	Wrong display refresh rate.	Check **Control Panel/Display**. Refresh rate must be greater than 72 Hz.	Reset display settings in **Control Panel** to minimum 72 Hz; minimum 256 colors, small fonts.
LIGHTPEN does not react(1)	Contrast at display too low, or lightpen-tip dirty.		Adjust display to high contrast and clean lightpen-tip.
LIGHTPEN does not react(2)	Lightpen card has wrong IRQ jumpered.	Check in **Event Viewer** for errors.	Change lightpen card IRQ jumper to appropriate setting. Refer to ***Lightpen Interface Board*** on page 12-2.
DIALOG-box does not accept input.	You have multiple overlapping message boxes, and the active one is behind the one currently displayed.		Move current message box aside. Repeat this until you reach the active one that require input.
SYSTEM MESSAGE occurs during normal operation: **serious error, restart PC** No network messages displayed	Serious internal error.		Press Restart to restart the PC. If this message keeps coming back then shutdown complete system (at server) and restart. **Make sure you restart the requested PC, and not the PC where you read the message!**

Table 7-1 Setup and Startup Problems

Problem	Explanation	Problem Verification	Remedy
External database cannot be installed on external server PC.	External server PC is already installed on the other PC.	Check all installed clients installation record.	De-install external database from other client. Install external database on desired PC.

Table 7-2 Network Errors

Problem	Explanation	Problem Verification	Remedy
Network error messages during normal operation: 1. **Network error has occurred; alert affected;** 2. **Serious error, restart PC** 3. **Cannot read/write patient-data** 4. **Client does not seem to accept input**	Network has become disconnected ■ Message number 3 keeps repeating after re-connection if there was no attempt to access to the disconnected client. ■ Message number 2 displays after re-connecting to network. if system tried to access to the disconnected client	Check switch and all connections error-messages on server and other clients.	Do not click **OK** or **Hide**; click on **Restart**. Make sure all network connections are correct. Acknowledge all error-messages at server.
Network error messages after reinstallation of Windows	At systems with two network interface cards: Reinstallation of Windows may change NIC assignment.	Check NIC assignment. See ***NIC Assignment*** on page 17-21.	Connect external NIC to hospital network, connect internal NIC to **OB TraceVue** network.
Network error messages (duplicate host name) at PCs equipped with second NIC.	Network loop between **OB TraceVue** network and hospital network.		Separate **OB TraceVue** network from hospital network. See ***Second Network Interface Card*** on page 17-20
Network **printer** error message: **ARP duplicate IP address**	IP address conflict.		Set TCP/IP to *off*. See ***2. Configure Printer Configuration Menu*** on page 6-43.

Hardware Problems

Table 7-3 Hardware Problems

Problem	Explanation	Problem Verification	Remedy
FLOPPY drive error message displayed **No disk inserted** Yellow light is on for 30 s; drive is working; then stops with error.	Intermittent problem with drive mechanism.		When yellow light is on, slightly press eject button to fully engage drive carriage.
Intermittent errors with HDD and SCSI-devices.	Cable connection or SCSI termination incorrect.	❑ Check that the external cable from SCSI card to drive is intact and correctly fitted. The pins at small connectors are very fragile. ❑ Check that the internal cable from SCSI card to HDD is intact and correctly fitted.	Connect cables correctly. Replace if necessary.
Intermittent errors with HDD and SCSI devices.	SCSI termination incorrect.	❑ Check internal bus termination: Terminator is connected to last connector of the ribbon-cable or termination jumper installed on last HDD (depends on HW) ❑ Check external bus termination: Terminator is installed at last external device. ❑ Check SCSI BIOS Setup. Press **Ctrl A**. Make sure that the SCSI termination is set to *Automatic*.	Install terminators correctly. Correct SCSI BIOS settings.
Intermittent errors with HDD and SCSI devices.	MO-drive settings incorrect.	Check MO drive settings. Make sure that the mode and address settings are configured for the appropriate PC type.	Enter correct MO drive settings.
Intermittent errors with HDD and SCSI devices.	Incorrect SCSI sync. rate	Kayak XA only: Check that the max. sync. rate is set to 20 MB. Refer to ***SCSI BIOS Settings for HP Kayak XA*** on page 22-9.	Enter the correct SCSI BIOS settings.
Soundcard not working.	Cable connection, interrupt-conflict, alert-configuration.	❑ Verify interrupts (not critical at client; but could be a conflict with lightpen at server). ❑ Verify wire connection to speaker. ❑ Check **Control Panel** for volume setting and system sounds enabled. Verify sounds. ❑ Remove soundcard and check if internal speaker generates sound.	1. Adjust lightpen IRQ accordingly. 2. Replace speaker. 3. Reinstall driver.
UPS not recognized. System error message: **Cannot connect to UPS**	Wrong cable, setup-parameters	❑ **PowerChute** software must be available in program group ❑ Make sure you use the correct cable. Use the cable that is in the UPS-box. ❑ Do NOT use general RS-232 fetal monitor cable.	Workaround if everything fails: Disable **PowerChute** software in program group, but leave the power-connections in place.
CD-ROM not working.		■ Check that: ❑ The CD-ROM drive is connected. ❑ The jumper at the back of the CD-ROM drive is set to **Cable Select**. ❑ The CD-ROM drive is connected to the **Master**.	

Table 7-3 Hardware Problems

Problem	Explanation	Problem Verification	Remedy
Serial Port Server not working.			Replace serial port server. See ***Replacing a Serial Port Server*** on page 6-36.
Unable to complete modem setup.	Modem not detected or malfunction.	❑ Check using Add/Remove Hardware Troubleshooting Wizard in Control Panel.	Check device port; replace cable or modem; verify working analog phone line.

Fetal Monitor Connection / Data Acquisition Problems

Table 7-4 Fetal Monitor / Data Acquisition Problems

Problem	Explanation	Problem Verification	Remedy
No traces from M1350A after installing RS-232 System Interface.	1. RS422-I/F in fetal monitor is plugged in (and takes precedence). 2. Wrong connector used (Barcode 9pin D-sub on processor-board). 3. Wrong cable.	1. Check I/F-cards. 2. Check connector: ■ Bar-code (wrong) is on processor board. ■ System (correct) is on system board M1350-66536. 3. Cable: M1380-61612.	1. Remove RS422-card; so only RS-232-IF is plugged in or adjust system setting to RS-232-IF according to FM manual. 2. Use correct connector and cable. 3. Use correct connector and cable.
No traces from M1351/53A after installing RS-232Sys-IF.	Wrong I/F board, wrong firmware revision, wrong cable.	Check I-F board and firmware rev. (print error-log on fetal monitor). Cable: M1380-61613. Connector: HPIB-type 25pin. Verify I/F: M1353-66531(E). Verify firmware: A.02.02.	Use correct HW as described; no mode setting required.
No traces from non-HP/Agilent/ Philips fetal monitor or from analog FMs.	Mode not adjusted at fetal monitor; see FM manual. Wrong cable / converter.	1. **Shutdown** OB **TraceVue** at this client. 2. **Start** program **FM-Spy** from **OBTV support** group. ❑ if monitor-ID is displayed correctly then cable/ converter are ok. ❑ if no monitor-ID is displayed then cable problem or wrong converter.	Adjust mode at fetal monitor.
No traces from any type of Fetal Monitor.	Setup was run but port settings were not selected.	NA	Re-run setup / select correct port settings.

Application problems

Table 7-5 Application Problems

Problem	Explanation	Problem Verification	Remedy
STORAGE does not work; message: cannot access optical disk drive.	MO-drive switched on after server-start. Optical disk accessed via **Windows Explorer** at server or client.	Check **Windows Explorer**: is connection to drive established? Check all PCs for **Windows Explorer** accessing optical disk.	Shutdown **Server**. Power off optical drives. Switch optical drives back on. Start **Server**. Start clients. Close all open **Windows Explorer**s at all PCs.
Patient list does not display all beds.	You are logged-in as user **Philips**. **Note:** Never create/edit/delete patient related data when you are logged on as an **Philips** user.	Verify user identify.	Log-in as regular user with permission to see all beds.
A message is displayed saying that the external server PC is not running.	External server PC installed and configured but not started.	Does the external server run?	Start up external server.
Cannot log in as **Philips** user	Users can change the password		Reinstall OB **TraceVue** at the sever. See ***Restoring the OB TraceVue Philips Password*** on page 16-9.

8 Maintenance

Introduction

The physical care and cleaning requirements are described in the ***Instructions for Use***. This chapter describes the periodic care and maintenance of mass-storage devices such as optical drives, optical disks, and hard disk drives.

Recommended Maintenance

Some of the following tasks can also be performed by the customer. Encourage them to do so.

Table 8-1 Recommended Maintenance Schedule

Task	Shutdown	Frequency	Time (minutes)
System Reboot Recommended: run the ***System Overview Tool*** - Full System Reboot.	System	Each month	
Check RAID disks Defect disk blinks; there is no acoustic alert on failure.	-	Each week	
Check the internal database Run the ***Local Data Recovery Tool***.	System	Every 3 months	Depends on the size of the database and the number of open episodes.
Check Error Log files	-	Each month.	10
Inspect Archive disk media. See ***Archive Disk*** below.	-	3 months (minimum). Clean[1] as necessary.	5
Inspect Retrieve disk media. See ***Retrieve Disk*** below.	-	Before every use. Clean[1] as necessary.	5
Cleaning Outside, and area surrounding, optical drive.	-	6 months	5 - 10
Server UPS Replace batteries (see ***Parts Stocking - UPS Parts*** on page 11-30)	System	3 to 5 years	15
Client UPS [2] Replace batteries (see ***Parts Stocking - UPS Parts*** on page 11-30)	attached PC	3 to 5 years	15

1. See ***Disk Cleaning Procedure*** on page 8-4
2. Client PC, standard external server, standard WEB/TS server, standalone server

Caring for Optical Drives and Media

Caring for Optical Drives (standalone drives only)

Caution: **DO NOT attempt to open an optical drive unit. It is a Class 1 Laser Product.**

Allow a minimum clearance of 70-80mm (3 inches) behind the rear panel and in front of the optical disk drive, to allow air circulation.

Position the drive away from sources of particulate contamination such as the floor, frequently-used doors and walkways, printers, stacks of supplies that collect dust, and smoke filled rooms.

To avoid contamination building up in the drive, clean the drive's surroundings and the exterior of its cover at least every three months, especially all airflow openings.

DO NOT use a drive lens cleaning kit.

If dust is a problem in the area where an OB **TraceVue** optical drive is installed, ensure that the optical disk drive cabinet is installed in the optical disk drive cabinet. Refer to ***Optical Disk Drive Cabinet*** on page 12-14.

Caring for Optical Disks

Storage and Handling When storing or handling optical disks, follow the environmental precautions illustrated on the label sheet provided in their packaging.

Archive Disk To avoid contamination building up on the disk in the OB **TraceVue** archive drive, **at least every three months** inspect **BOTH** sides of the disk and clean as necessary. Follow the instructions given with the magneto-optical media cleaning kit provided.

No shutdown is required to complete this simple procedure.

Retrieve Disk A disk should not be left in the retrieve drive longer than is necessary. Remove the disk from the drive, make sure the drive's door is shut, and store the disk in its card sleeve in a suitable environment.

Before use, inspect **BOTH** sides of the disk and clean as necessary. Follow the instructions given with the magneto-optical media cleaning kit provided.

Disk Cleaning Procedure

1. Start the OB **TraceVue** Optical Disk Manager
2. Select **Change optical disk for archiving**.
3. Select **Insert the last disk for archiving**.
4. The disk is ejected; clean the disk
5. Insert the cleaned disk, follow the on-screen instructions.

Optical Disk Cleaning Kit

An appropriate cleaning kit, such as the kit supplied with an archiving system, is required to clean an optical disk. Be sure to follow the instructions included with the cleaning kit carefully.

Rebooting the WEB/Terminal Server

To reboot the WEB/Terminal Server without rebooting the whole OB **TraceVue** system follow the steps below:

1. At the Terminal Server PC start the Terminal Services Manager.
2. Select all running sessions.
3. Use **Action** → **Send Message** to send a free text notification to the selected sessions.
4. Select **Action** → **Disconnect**.
5. Reboot the WEB/Terminal Server PC.

Virus Protection

See the Integration Guide for virus protection information.

External Database Performance

Note This applies only to systems with an external database

To maintain or optimize the performance of the external database server the size of the external database must be kept under control. If the database becomes too large and the database server therefore becomes too slow, episodes must be removed.

Manual Purge Use the ***External Database Administration Tool*** to purge patient data.

Automatic Purge OB **TraceVue** D.01.00 (or later) supports automatic purge of closed episodes from the external database.

You may specify a time after which closed episodes are automatically removed from the external database in the **System Manager's Configuration** screen, **External DB** tab at the internal server PC.

The default purge time is 2 years.

See also the ***System Administration and Configuration Guide***.

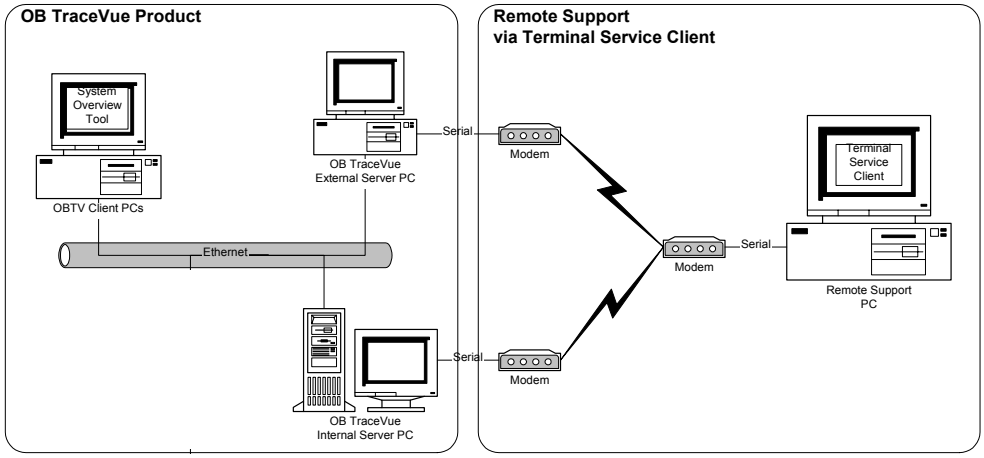
Note **When upgrading from D.00.02 or earlier:** After you have upgraded the internal server PC make sure to set the purge time to the required value **before** starting the external database server PC.

Once you have upgraded and started OB **TraceVue** at the **external** database server PC, closed episodes will be removed from the external database if they are older than the specified "purge time".

9
System Support

Overview

The following picture shows an overview of the tools and methods that can be used to support an OB **TraceVue** system:



System Overview Tool

Use the System Overview tool to:

- see an overview of all PCs on one OB TraceVue system.
- start, stop and reboot a complete system from one PC.
- start, stop and reboot individual clients (including remote clients) from one PC.

A detailed description of how to use the System Overview Tool is in the ***System Administration and Configuration Guide***.

The Integration Guide contains instructions on how to configure the DCOM service to allow the System Overview tool to pass a firewall.

Restrictions

- OB **TraceVue** Web clients are not handled. They can only be viewed in the tool.
- OB **TraceVue** is not started automatically on WEB/Terminal server PCs. If required, select the WEB/Terminal server PC(s) and click **Start OB TraceVue** to start manually.

Using with OB TraceVue Remote LAN Clients

- To remotely administer a PC connected to a different network segment **name resolution** and **routing** must be configured appropriately.
- If no name resolution is available the host names can be configured manually:

  For each client connected to a different network segment, enter a line containing the IP address and the hostname in the file **%WINDIR%\system32\drivers\etc\hosts**.
- To verify, that routing and name resolution is configured correctly, use the command **ping <*host*>** where **<*host*>** is the hostname of the remote PC without domain extensions.

Remote Support Using Terminal Services

Overview

Remote support via Terminal Services allows to connect to OB **TraceVue** servers for administration purposes.

It is possible to connect to these servers by using a **Terminal Services Client**.

On the remote support PC the Terminal Services Client displays a new desktop of the connected server. It is not possible to share the screen of the connected server. Although OB **TraceVue** may be running on that PC it is not visible in the Terminal Services Client session.

You can find detailed information about Windows 2000 remote support at:

http://www.microsoft.com/windows2000/techinfo/administration/terminal/tsremote.asp

Supported PCs

The Terminal Services Server (administration mode) is prepared on

- OB **TraceVue** internal server and
- OB **TraceVue** external server

Note

The preferred PC for the Terminal Services Server is the OB **TraceVue** external server. This has least impact on system stability and performance.

Do **not** set up a modem for **remote support** on the **Web Terminal Server** PC.

Licences

The Terminal Services Server supports two concurrent administrator connections without installing a license.

Operating Systems

Clients are available for computers running Windows 2000, Windows NT, Windows ME, Windows 98, Windows 95 and others.

Installation

To install remote support

At the customer's site:

- Enable Terminal Services **Server**.
- Configure and install an **incoming** modem connection.

At the support office:

- Install Terminal Services **Client**.
- Configure and install an **outgoing** modem connection.

Enabling Terminal Services Server Remote Support on a Server PC

The Terminal Services Server is initially disabled and must be enabled to allow a connection. At the selected OB **TraceVue** server:

- Go to ***Services***.
- Start **Terminal Services**.

Caution: **When ending the remote support session stop the Terminal Services Server at the OB TraceVue server PC to avoid unauthorized access.**

Modem Setup

Note Remote support modems are usually connected to serial port B (COM2). On the LC2000 COM2 is labeled **Management Port** and must be configured as **Serial Port** in the BIOS setup.

- Add a modem device.
- Configure the modem.
- Customer's site: Configure an **incoming** connection.
- Support office: Configure an **outgoing** connection.

For details refer to ***Installing a Modem*** on page 6-48.

Installing Terminal Services Client

The OB **TraceVue** Client CD-ROM contains the Windows NT4 / Windows 2000 and Windows 9x / Windows ME version of the **Windows Terminal Services Client** software.

To install the Terminal Services Client software run **\Utilities\TerminalServerClient\msrdpcli.exe** from OB **TraceVue** Client CD-ROM.

Follow the on-screen instructions.

Note The **Windows Terminal Services Client** software is only required for remote support via Terminal Services. Do not use for WEB clients.

Using Terminal Services Client

The Terminal Services Client displays a **new** desktop of the connected server. To avoid mixing up the remote support PC desktop and the Terminal Services Client desktop do not use full screen mode for the terminal session. Alternatively use a different display scheme on the remote support PC.

To Connect to the OB TraceVue Server

- Establish a network connection between the remote support PC and the OB **TraceVue** internal or external server PC. Use a standard LAN or dialup network (modem and telephone line) connection. Refer to ***Installing a Modem*** on page 6-48 and to the Windows help.
- Go to **Start** → **Programs** → **Remote Desktop Connection** to set up a new connection.
- Select a screen area for the terminal session which is less than the resolution of the remote support PC.

To Disconnect from the OB TraceVue Server and Close the Connection

- In the Terminal Services Client window click **Start** → **Shut Down**.
- In the **Shutdown Windows** dialog select **Log off user**.

Caution: **Do not choose Shutdown or Restart. This shuts down the OB TraceVue server PC.**

Using System Overview Tool within Terminal Services Client

It is possible to use the System Overview Tool within a Terminal Services Client session.

If the tool is used to

- start or stop OB **TraceVue**
- reboot a client
- reboot the whole system

Inform the customer in advance. A service person must be available at the OB **TraceVue** site to perform local actions if required.

Using OB TraceVue within Terminal Services Clients

Starting OB **TraceVue** within a Terminal Services Client session adds a Web Client with the name of the remote support PC to the OB **TraceVue** system.

Log Files

The following table lists all OB **TraceVue** log files.

You can use **GetLog** to archive all log files in a single file. See ***GetLog*** on page 14-20.

Table 9-1 OB TraceVue Log Files

Log	Location	Size	Comment
PC log	Internal server PC: **C:\tv2\logdata\<*hostname*>.log**	≤ 6MB per file	Successes, warnings and errors during execution of OB **TraceVue**.
Startup log	All PCs: **C:\TraceVue.log**	≤ 6MB Typical: < 1KB	Check if OB **TraceVue** does not start. Overwritten at each start of OB **TraceVue**.
	WEB/Terminal server PC: **C:\<*hostname*>.log** (for each WEB/Terminal client)	≤ 6MB per file Typical: < 1KB	
HL7 log	Internal server PC: **C:\tv2\logdata\<*hl7server*>.hl7**	≤ 6MB	Successes, warnings and errors of the HL7 module.
Setup Error log	All PCs: **C:\traceset.txt**	Typical: < 2KB	Errors, that occurred in execution of OB **TraceVue** Setup. Overwritten at each start of OB **TraceVue** Setup. Only available if Setup failed.
Configuration Backup log	Internal server PC: **C:\tv2\logdata\CfgBkup.log**	≤ 6MB	Successes, warnings and errors of the offline Configuration Backup tool.
Local Recovery log	Internal server PC: **C:\tv2\logdata\RecoveryTool.log**	≤ 6MB	Activity log of the recovery tool.
Retrieve from Optical log	Internal server PC: **C:\tv2\logdata\RFOWiz.txt**	Typical: < 5KB added per execution.	Activity log of the Retrieve from Optical Tool.
System Overview Tool log	On the PC where SysView was started: **C:\tv2\tools\sysview.txt**	≤ 2MB per file	If limit is reached, **sysview.txt** is renamed to **sysview_old.txt** and a new **sysview.txt** is created.

Table 9-1 OB TraceVue Log Files

Link Recovery log	On the *Master* PC: **C:\tv2\tools\LinkRecovery\ LinkRecoverMaster_Log.txt**	Typical: < 5KB	Master activity log. Overwritten at each start of the tool.
	Master PC (direct connection) or *Slave* PC: **C:\tv2\tools\LinkRecovery\ Agent_<*hostname*>.txt**	Typical: < 5KB	Agent activity log (steps performed on each PC) Overwritten at each start of the tool.
	Master PC: **C:\tv2\tools\LinkRecovery\ RecoveryMonitor.txt**	Typical: < 5KB	Log file for the agent monitoring process. Overwritten at each start of the tool.
Upgrade log	Internal server PC: **C:\obtv_upgrade.log**	Typical: < 5KB	Migration of 1.64 Database. Lists patients and configuration items which could not be upgraded.
Optical Disk Check log	Internal server PC: **C:\disktool.log**	Typical: < 10KB	Activity log.

HP TopTools Management Software

Note HP **TopTools** is supplied with the LC 2000 only.
HP **TopTools** requires the SNMP service. See Task 36: ***Network Security*** on page 5-28.

HP **TopTools** is an integrated solution for the management of HP PCs, HP NetServers, HP hubs and switches, as well as standards-based devices from other vendors. HP TopTools enables efficient and automatic asset and inventory management, finding and tracking of devices over the network.

It should be noted however, that while HP TopTools lets you manage devices over a network, it is a *device* management application, and is *not* intended to function as an open management platform.

Though HP TopTools may help you to manage the network, it is not necessary for running OB **TraceVue**. It should be installed and maintained by qualified IT personnel only.

For detailed installation and configuration instructions and minimum system requirements refer to the HP TopTools 5.0 CDROM.

OB **TraceVue** is prepared for, and has been tested with, *HP TopTools Version 5.0.* This package consists of several modules:

TopTools Device Manager This software may be installed on a dedicated PC in the OB **TraceVue** network, but it must not be a PC running any OB **TraceVue** software. It lets you manage and review devices over the network.

TopTools Agents The TopTools Agents run on the PC to be monitored by the device manager software. On the OB **TraceVue** high-end server (NetServer LC2000 with RAID), the appropriate agent software is already pre-installed. There is no need to install any agents on OB **TraceVue** client PCs.

TopTools Auto Alert HP TopTools Auto Alert allows your NetServers to proactively send alerts to the TopTools device manager or any other computer on the network where Auto Alert is installed. This must not be a PC running any OB **TraceVue** software.

HP / Compaq Insight Management Software

Note HP / Compaq **Insight** is supplied with the ProLiant ML370 G2/G3 and ProLiant ML350 G4/GP4P PCs only.

HP / Compaq **Insight** requires the SNMP service. See Task 36: ***Network Security*** on page 5-28.

Introduction

HP / Compaq Insight Manager 7 provides rapid access to detailed fault and performance information gathered by the Management Agents. Insight Manager 7 helps maximize system uptime and performance and reduces the cost of maintaining the IT infrastructure by providing proactive notification of problems before those problems result in costly downtime.

Though Insight may help you to manage the network, it is not necessary for running OB **TraceVue**. It should be installed and maintained by qualified IT personnel only.

For detailed installation and configuration instructions and minimum system requirements refer to the *HP / Compaq Management* CDROM.

Management Agents

OB **TraceVue** is prepared for, and has been tested with, HP ProLiant Support Pack 7.00. Currently the management agents are excluded due to operating system incompatibilities.

The Agents run on the PC to be monitored by the device manager software.

On the OB **TraceVue** client PCs, External Server PCs, and Web/Terminal PCs the Management Agent software may be installed upon third party integration testing. Select DMI support during installation.

HP / Compaq Insight Manager 7 SP2

This software may be installed on a dedicated PC in the OB **TraceVue** network but it must **not** be on a PC running any OB **TraceVue** software. It lets you manage and review devices over the network.

HP Insight Diagnostics Online Edition for Windows

Installation To install HP Insight Diagnostics Online Edition for Windows and HP System Management Homepage for Windows:

1. Stop OB **TraceVue**.
2. Log on as an administrator.

3. From the OB TraceVue client CD, execute the file **\Utilities\ProLiant\apply.cmd.**
4. Reboot the PC if the installation routine suggests it.

Configuration: To configure the Diagnostics software:

1. Launch the "**HP System Management Homepage**" shortcut from the desktop.
2. Go through the internet connection wizard (if it comes up).
   - set it up for LAN
   - leave the defaults for the proxy discovery
   - do not setup internet mail accounts
3. Click on yes if a 'security alert' is displayed.
4. Logon using any local Windows administrator account.
5. Everytime you launch the System Management Homepage, you will see a message saying that this IE is not supported. You can disregard this.
6. Under "other agents" click on "HP Insight Diagnostics".
7. Ignore the runtime error and select to not debug.
8. In the "Survey" tab click on "Schedule Survey Capture".
9. Set it to the desired interval, e.g. weekly, check all days and set the time to 23:55.

From now on, a report is generated automatically at the specified times. The output file is stored in **C:\hp\hpdiags** and has the following format:

survey<YYYY>-<MM>-<DD>-<HH>-<mm>-<ss>.xml

You can view this file using any XML viewer. You can also load the file from the Management Homepage in order to compare different logfiles to check for configuration changes.

10
Configuration Verification Procedure

Customer Verification

The customer must verify that the system configuration is correct. To do this, you should make sure that the customer signs a printout of the **CONFIG.TXT** file.

Configuration Verification

1. Start OB **TraceVue**.
2. Go to **System Manager's Configuration**.
3. In the **ASCII Copy of Configuration** box, enter **C:\CONFIG.TXT** as **File Name**.
4. Click **Copy** to copy the data to file.
5. Click **Yes** to confirm.
6. Print out the **CONFIG.TXT** file. The beginning of the file should look like ***Figure 10-1***.
7. The customer must sign the bottom of the file printout. The file should end with **Serial Number** and **Label** (see ***Figure 10-2***).

```
                    ################################
                   #                               #
                  #          OB TRACEVUE            #
                  #                                 #
                  #    CONFIGURATION PRINTOUT       #
                   #                               #
                    ################################

                          07/20/2001 11:25

                  Best Printout with Font Courier New, Regular, 8

#########################################################################################################################
# Configuration                                                                                                         #
#########################################################################################################################

  System Information                          Product Order Information
    Software Revision  C.00.00                  #1
    Build              N.04.14                  #2
```

Figure 10-1 Config.txt File First Lines

```
#########################################################################################################################
# Configure Remote Fetal Monitors                                                                                       #
#########################################################################################################################

    Serial Number       |Label
    --------------------+-------|
```

Figure 10-2 Config.txt File Last Lines

11 Repairing/Replacing Hardware and Media

Repair Strategy

This section describes the full unit exchange or board-assembly exchange strategy applied to OB **TraceVue**.

Caution: **When replacing harddisks, optical drives or CD-ROM drives check drive letter assignment after you have replaced the drives. Refer to *Checking and Changing Drive Letters* on page 17-17.**

Note Do not attempt to open an external optical drive.

Hardware Defects

Hardware defects can be dealt with in the following ways:

Table 11-1 Repair methods and when to use them

Repair Method	When to use it
Component Exchange or Replacement	For parts that are identified by exchange/replacement numbers (such as power-supply, fan, connectors, cables).
Full Unit Exchange	Exchange an entire unit if you cannot identify an exchange or replacement part as the cause of the problem, and for compact devices that should not be opened (such as transformer, modem).
Onsite Repair	Loose connections, wiring problems, mechanical mounts, installation problems.
Other	Client PCs can be interchanged to temporarily substitute a defective PC. A client PC can be upgraded to a server PC. This requires installation of special server equipment (CD-ROM drive, additional memory). If patient data storage is required the PC also requires a SCSI host adapter and additional HDD, see ***Secondary Hard Disk Drive (for Storage Systems)*** on page 12-8).

Table 11-2 Repair Method

Equipment	Repair Method
Peripheral Devices	Component exchange/replacement as described in full unit exchange. Use part numbers printed on the component. Note that the UPS, transformer, and modem are only available as full unit exchange. You must not replace components or perform onsite repair.
Optical Medium Changers	1. Remove all media (do **not** use the Windows Explorer): ▪ Eject the media through the OB **TraceVue** Optical Disk Manager. If that does not work: ▪ Shut down OB **TraceVue** and eject the media through the ***Removable Storage Manager***. If that does not work: ▪ Shut down the PC and eject the media via the jukebox front panel. If that does not work: ▪ Mechanical disassembly is required. 2. Install the shipping screw and mailslot shipping bracket prior to shipping.
PC Boards and Internal Components (soundcard, RS-232 card)	Component exchange/replacement as described in full unit exchange. Use part numbers printed on component.
Assembly Kits (lightpen, soundcard-kit)	Replacement parts are available for individual components of the kit. For example, from the lightpen kit, you can order a lightpen card, or the lightpen stick plus holder plus cable.
OEM Parts	Replacement parts are available for individual components.
Fuses	Provide replacement fuses locally. The isolation transformer is supplied with extra fuses.
Batteries	Replace these according to the part number printed on the batteries. Batteries in the client and server UPS can be replaced on site.
Cable and Connectors	Replace these according to the part number printed on the cable or connector.
Wall Cabling	Replace the cable by ordering a new cabling kit.

Replaceable Parts of Server and Client PCs

- Power supply
- Motherboard and processor
  You must exchange the complete board if any of the integrated connectors breaks.
- Memory
- Floppy disk drive
- Processor cooler
- HDD (C:-drive)
- Front panel
- Ribbon cable to floppy disk drive
- Ribbon cable to CD-ROM
- Power cables
- Battery
- Display monitor

Additional Parts of Server PC

- CD-ROM drive
- SCSI-host adapter
- SCSI-HDD or IDE drive (type depends on PC model).
- Internal SCSI ribbon cable (type depends on HW):
  - SCSI bus terminated at the end of the cable (make sure to apply the terminator)
  - SCSI bus terminated at last internal drive (make to apply the termination jumper)

All SCSI items on this list are for storage systems only.

Optional Parts for Client PC and Server PC

- Lightpen
- Lightpen board
- RS-232 board (PCI)
- Soundcard
- Speaker

Substituting a PC

When using a spare client (e.g. PC name **SPARE**) as a substitute for a defective client (e.g. PC name **ORIGINAL**) you must ensure that the spare client has the same settings and alert distribution as the original client. **Simply renaming SPARE to ORIGINAL is not permitted**.

1. Uninstall OB **TraceVue** on the **SPARE** client.
2. Rename the spare PC to **ORIGINAL** and reboot.
3. Reinstall OB **TraceVue** on the client. This ensures that the substitute client has the same settings as the original client PC.

See ***Changing a Client PC Name*** on page 13-1 for details.

Software Media Defects

If an OB **TraceVue** CD-ROM breaks, or cannot be read you must order a replacement OB **TraceVue** media kit.

The Windows operating system is included on the OB **TraceVue** CD-ROM media.

Parts Stocking

- 12-digit part numbers (12NC) are Philips orderable part numbers.
- Mxxxx-xxxxx are old Philips part numbers (can be translated to 12-digit part numbers).

Note: Internal Philips numbering (non-orderable; for reference only)

- **HP** = HP Spare Part (SP) number.
- **EX** = Exchange if appended as a suffix to HP Spare Part number.

Fetal Monitor Connections

Table 11-3 Parts Stocking - Fetal Monitor Connections

Description	Part Number		Remarks
	Exchange	New	
Fetal Monitor Connection			
See Appendix A. ***Fetal Monitor Connections***, Table 34-5, ***Protocol Conversion Kits and Cables***, on page A-2			

Power Supply

Table 11-4 Parts Stocking - Power Supply

Description	Part Number		Remarks
	Exchange	New	
Power Supply			
UPS and batteries	See ***UPS Parts*** on page 11-30		
Isolation Transformer 110V	n/a	4535**63**279351	M1389-60001
Isolation Transformer 220V	n/a	4535**63**279361	M1389-60002
Power device cable	n/a	4535**63**199511	to connect LC2000 to UPS (Europe) 8120-6514CP
Power cable adapter	n/a	4535**63**199391	to connect power-plug to isolation transformer outlet 8120-5440

Accessories

Table 11-5 Parts Stocking - Accessories

Description	Part Number		Remarks
	Exchange	New	
Accessories			
Lightpen (w/o board)	n/a	4535**63**77531	for all PCs (includes holder) M1370-40001
Lightpen board ISA (PXL 395)	n/a	4535**63**77551	all PCs prior to Vectra VL400 M1370-66510
Lightpen board PCI FastPoint (PXL 595)	n/a	4535**63**78251	Vectra VL400, VL420, Evo D510, D530 M1380-66403
Lightpen holder	n/a	4535**63**79321	M1383-64402 FastPoint Technologies, Inc. (791-005-01-00)
RS-232 I/F PCI board	n/a	4535**63**78261	for Kayak XA, VL400, VL420, D510, D530, dc7100 (M1380-66501)
PCI RS232 card	n/a	4535**64**23981	for dc7600 BrainBoxes UC-257 (M1380-60501)
3Com 10/100BT Lan Card	n/a	4535**63**308651	for VL400 and LC2000 M2040-44302
Network Card (Intel)	n/a	4535**63**463271	Vectra VL420, ProLiant ML370, Evo D510, D530 Intel PILA8460BN, Pro/100+ PCI (M1381-66401)
Intel NIC Card 10/100/1000	n/a	4535**64**10681	dc7100, dc7600, Proliant ML 350 G4/G4p Intel PWLA8390MT (M1381-66402)
JetDirect Card	n/a	4535**64**10671	620N/J7934A; M3159-60059 Compatible with EIO slot HP printers. Replaces 610N/J4169A and 615N/J6057A.
MO media cleaning kit	n/a	4535**63**10931	C1700-88800CP Do **not** use C1700-88802CP lens cleaning disk!
MO drive cleaning accessories	n/a	4535**63**10941	Includes cleaning fluid and cloth. C1700-88801CP
Mousepad (Philips)	n/a	4535**64**08041	M1383-49004 (D.01 Mouse Pad)

Cabling

Table 11-6 Parts Stocking - Cabling

Description	Part Number		Remarks
	Exchange	New	
Cabling (LAN, RS232)			
DB9 connector male	n/a	4535**630**50631	1252-3092 single connector (qty: 6 included with M1380x_#K41)
DB9 connector female	n/a	4535**630**50791	1252-3663 single connector (qty: 6 included with M1380x_#K41)
UTP Patch Cable 3.6m (12ft)	n/a	4535**633**37411	M3199-60105, terminated
RS-232 cable wall plate->PC	n/a	4535**632**78151	straight through [9p male -9p female] M1380-61616

Modems

Table 11-7 Parts Stocking - Modems

Description	Part Number		Remarks
	Exchange	New	
Modems			
Modem MultiTech 56k desktop	n/a	4535**632**78281	MT5600BA - US only (M1380-66601)
Cable	n/a	4512**610**06541	Belkin F2L088-10-GLD (M1380-61604)

Hubs/Switches

Table 11-8 Parts Stocking - Hubs and Switches

Description	Part Number		Remarks
	Exchange	New	
Hubs / Switches			
Hub HP ProCurve 10/100	4535**634**87971	4535**634**87961	12 port (HP J3294A) J3294-69101CP (exchange), J3294-61101CP (new) order J3295A if new is unavailable
Hub HP ProCurve 10/100	4535**632**23401	4535**632**23381	24 port (HP J3295A) J3295-69101CP (exch), J3295-61101CP (new)
Switch HP ProCurve 2312	4535**634**00231	4535**634**00221	12 port (HP J4817A) non-routing, unmanaged J4817-69001CP (exch), J4817-61001CP (new)
Switch HP ProCurve 2324	4535**632**23601	4535**632**23591	24 port (HP J4818A) non-routing, unmanaged J4818-69001CP (exch), J4818-61001CP (new)

Serial Port Servers

Table 11-9 Parts Stocking - Serial Port Servers

Description	Part Number		Remarks
	Exchange	New	
Serial Port Servers			
Serial Port Server (Moxa) - 4 Port	n/a	4535**632**78051	**DE-304** / 110V-US (includes pwr-supply) M1380-60103
Serial Port Server (Moxa) - 4 Port	n/a	4535**632**78061	**DE-304** / 230V EURO (includes pwr-supply) M1380-60104
Adapter cable	n/a	4535**634**02091	M1381-61604 (EU adapter cable)
Serial Port Server (Moxa) - 4 Port	n/a	4535**633**76871	**DE-304** / 230V-UK (includes pwr-supply) M1380-60105
Adapter cable	n/a	4535**640**10891	M1381-61605 (UK adapter cable)
Serial Port Server (Moxa) - 4 Port	n/a	4535**634**83911	**DE-304** / 240-AUS (includes pwr-supply) M1380-60107
Serial Port Server (Moxa) - 4 Port	n/a	4535**633**76881	**DE-304** / 100V-JPN (includes pwr-supply) M1380-60106
Serial Port Server (Moxa) - 8 Port	n/a	4535**633**76851	**DE-308** (all geographies) M1380-10901
Serial Port Server (Moxa) - 16 Port	n/a	4535**633**76861	**DE-303** (all geographies) M1380-10902
Serial Port Server (Moxa) - 8 Port	n/a	4535**640**08531	**Nport-5610-8** - 8 Port Nport Server Pro M1380-60112
Serial Port Server (Moxa) - 16 Port	n/a	4535**640**08541	**Nport-5610-16** - 16 Port Nport Server Pro M1380-60113
Adapter RJ45 male to RJ45 female (Cable)	n/a	4512**610**10051	M1380-60611. To be used with every fetal monitor connected to a 5610 family SPS.

Tape Drives

Table 11-10 Parts Stocking - Tape Drives

Description	Part Number		Remarks
	Exchange	New	
Tape Drives			
Tape Drive (HP)	4535**63**13281	4535**63**13271	HP Colorado 8GB (HP C4386B) C4386-69001CP / C4386-60001CP for **Kayak XA, VL 400**
Tape Drive (Seagate IDE)	n/a n/a	4535**63**78301 4535**63**486341	Seagate 8GB, STT28000A-RFT Int. IDE tape drive w/ tape (M1381-10101) Seagate 8GB, STT28000A-RFT-R refurbished unit for **VL400, VL420**
Tape Drive (Travan TR5; 20GB Int. IDE)	n/a	4535**63**464351	HP 480081-001 for **D510**
Certance/Seagate 20GB Travan Tape Drive (white) 3.5 inch black face plate 5.25 inch black bezel (tape cover)	n/a n/a n/a	4535**64**00011 4535**64**00021 4535**64**00031	M3167-69016 (STT220000-RDT) M3167-69017 (for color correction) M3167-69018 (for color correction) for **D510, D530, dc7100, dc7600**

Optical Drives

Table 11-11 Parts Stocking - Optical Drives

Description	Part Number		Remarks
	Exchange	New	
Optical Drives			
Optical drive cabinet	n/a	4535**632**79311	For one optical drive only M1383-64401
Optical Drive 5.2GB	4535**632**10311	4535**632**10261	5200ex (HP C1114J) C1114-69108CP (exch), C1114-60108CP (new)
Optical Drive 9.1GB	4535**632**10301	4535**632**10231	9100mx (HP C1114M) C1114-69014CP / C1114-60014CP
Optical Drive 9.1GB	4535**633**99821	4535**633**99811	9100mx (HP C1114R); OEM version, no front panel label C1114-69016CP (exch), C1114-60016CP (new)
SE SCSI-2 Active Terminator (50-pin high density)	n/a	4535**632**08091	A1658-62016CP (HP C2904A) for 5.2 GB and 9.1GB optical drives (alternate p/n 1250-2548CP)
SCSI UW external cable	n/a	4535**631**99431	HP C2908A, MO drive -> MO drive 8120-5548CP
SCSI Adapter cable 0.8mm VHDCI to HD68F/1ft	n/a	4535**634**71631	ML370 to M1381-61601 cable (M1381-61608)
SCSI cable (68p HDTS M to 68pHDTS M)	n/a	4535**634**77251	1m cable to jukebox (M1381-13724; HP C2911C). ML370 also requires M1381-61608.
SCSI cable HDTS68, M/M, 1.5m	n/a	4535**640**26431	1.5m cable to jukebox (M1381-13750; HP C2979B), ML370 also requires M1381-61608. No additional external SCSI device allowed if jukebox connected to Kayak XA.
SCSI cable ext. HDTS68 Wide to HDTS50 Term.	n/a	4535**632**79291	M1383-61601 host adapter ->stand alone MO-drive (all supported PC and Server models)

Jukebox/Autochanger

Table 11-12 Parts Stocking Jukebox/Autochanger

Description	Part Number		Remarks
	Exchange	New	
Jukebox/Autochanger C1119M (HP 220mx)			
Low voltage differential SCSI terminator	n/a	4535**63**490051	HP 1253-3295
Mailslot Lock	n/a	4535**63**490061	HP C1100-48303
8 disk magazine side (guide) kit	n/a	4535**63**490071	HP C1100-60126
Mail slot assembly	n/a	4535**63**490081	HP C1100-60229
9.1GB - 14X optical drive mech	4535**63**490101	4535**63**490091	HP C1113-60014 / HP C1113-69014
Autochanger controller board	4535**63**490251	4535**63**490111	HP C1118-60003 / HP C1118-69003
Power supply assembly	n/a	4535**63**490121	HP C1118-60028
Leadscrew/vertical drive assembly	n/a	4535**63**490131	HP C1118-60032
Carriage/picker assembly	n/a	4535**63**490141	HP C1118-60040
Carriage/picker assembly flex cable	n/a	4535**63**490151	HP C1118-60041
Carriage guide rod	n/a	4535**63**490161	HP C1118-60042
Power distribution cable assembly	n/a	4535**63**490171	HP C1118-60051
SCSI cable for external SCSI port	n/a	4535**63**490181	HP C1118-60058
Optical drive SCSI cable	n/a	4535**63**490191	HP C1118-60059
Front panel cable	n/a	4535**63**490201	HP C1118-60065
Front panel display assembly	n/a	4535**63**490211	HP C1118-60077
Front panel (bezel-gray)	n/a	4535**63**490221	HP C1118-60079
Packaging (shipping box) kit	n/a	4535**63**490231	HP C1118-60099
Fan assembly	n/a	4535**63**490241	HP C1118-68500
Ejection tool	n/a	4535**63**490261	HP C1701-88803

Displays

Table 11-13 Parts Stocking - Displays

Description	Part Number		Remarks
	Exchange	New	
Displays			
Replacement information. All supported 15" CRT displays (M1388-60001, D2832-xxxxx) are replaced by 17" CRT display p/n 4535**640**18971 (M3161-60008). All supported 17" CRT displays (D8900-xxxxx, D8906-xxxxx, D8907-xxxxx) are replaced by 17" CRT display p/n 4535**640**18971 (M3161-60008). All supported 21" CRT displays (D8915-xxxxx, P4819-xxxxx) are replaced by 19" Flat Panel display p/n 4535**640**23941 (M3163-60017).			
15 Inch CRT			
15" CRT Display (Sony)	n/a	4535**632**79341	US (Sony: CPD-E100); M1388-60001 See Replacement information at the top of this table.
15 Inch Flatpanel			
15" Flatscreen display (Touch) Power supply for 15" flatscreen Video cable for 15" flatscreen	4535**632**41761 n/a n/a	4535**632**41661 4535**634**82651 4535**632**41721	Planar Systems - (M1097A) M1097-68004 (exch) / M1097-60004 (new) M1097-60006 M1097-61604 (1.6m)
15" Flatscreen Display (M1393A)	n/a	4535**634**63261	Advan AGM15TK M1393-60001 (new) -> replaced by 862189
15" LCD Display (Non-Touch)	4535**640**18951	4535**640**17021	ELO Touchsystems: E28122-000 Philips: 862189
15" LCD Display w/USB Touch	4535**640**18961	4535**640**17031	ELO Touchsystems: E91218-000 Philips: 862190
17 Inch CRT			
17" HP/Compaq CRT Display	n/a	4535**640**03171	HP: 261611-003, P9013A #ABA (V7550) M3161-60004 -> replaced by M3161-60008
17" HP/Compaq CRT Display	n/a	4535**640**18971	HP: 261611-003, PF996AA_#ABA M3161-60008
17 Inch Flat Panel			
17.4" Flatscreen Display, Bone (Advan)	4535**634**02821	4535**633**36601	Advan AGM17TAA M3163-60001 (new) -> replaced by M3163-60011 (new) M3150-69702 (exch)
17.4" Flatscreen Display, Black (Advan)	4535**634**76531	4535**634**69911	Advan AGM17TAA-BL M3163-60003 (new) -> replaced by M3163-60011 (new) M3163-69003 (exch)
Display, 17" LCD, Black (ELO)	4535**640**14911	4535**634**87461	ELO Touchsystems D66761-000/F57496-000 M3163-60006 (new) -> replaced by M3163-60011 (new)
Display, 17" LCD w/USB Touch, Black (ELO)	4535**634**94741	4535**634**87471	ELO Touchsystems F17106-000/F32335-000 M3163-60007 (new) -> replaced by M3163-60012 (new)
Display, 17" LCD, Black (ELO)	4535**640**09561	4535**640**06661	ELO Touchsystems C48217-000 M3163-60011 (new) -> replaced by M3163-60013 (new)
Display, 17" LCD w/USB Touch, Black (ELO)	4535**640**18651	4535**640**06671	ELO Touchsystems C33015-000 M3163-60012 (new) -> replaced by M3163-60014 (new)
Display, 17" LCD, Black (ELO)	4535**640**24261	4535**640**18341	ELO Touchsystems D34694-000 M3163-60013 (new) -> replaced by M3163-60015 (new)

Table 11-13 Parts Stocking - Displays

Description	Part Number		Remarks
	Exchange	New	
Display, 17" LCD w/USB Touch, Black (ELO)	4535**64**023931	4535**64**018351	ELO Touchsystems F80293-000 M3163-60014 (new) -> replaced by M3163-60016 (new)
Display, 17" LCD, Black (ELO)	4535**64**025391	4535**64**023921	ELO Touchsystems D34694-000 M3163-60015 (new) -> serialized
Display, 17" LCD w/USB Touch, Black (ELO)	4535**64**025381	4535**64**023931	ELO Touchsystems F80293-000 M3163-60016 (new) -> serialized
19 Inch Flat Panel			
HP 19" Flat Panel Display	see Remarks column	see Remarks column	HP 324751-001 (P9626A #ABA) M3163-60010 (new) -> replaced by M3163-60008 M3163-69010 (exch) -> replaced by 4535**64**009571
19 inch LCD Display (ELO)	4535**64**009571	4535**63**487481	ELO Touchsystems F66307-000 M3163-60008 (new) -> replaced by M3163-60017 (new)
19 inch LCD Display w/ USB Touch (ELO)	4535**64**009581	4535**63**487491	ELO Touchsystems C81176-000 M3163-60009 (new) -> replaced by M3163-60018 (new)
19 inch LCD Display (ELO)	4535**64**025411	4535**64**023941	ELO Touchsystems F66307-000 M3163-60017 (new) -> serialized
19 inch LCD Display w/USB Touch (ELO)	4535**64**025401	4535**64**023951	ELO Touchsystems C81176-000 M3163-60018 (new) -> serialized
21 Inch CRT			
See Replacement information at the top of this table.			

Kayak XA

Table 11-14 Parts Stocking - Kayak XA

Description	Part Number		Remarks
	Exchange	New	
Kayak XA (D6723N, D6731T) / XU (D8431T)			
SCSI UW host adapter card	n/a	M1380-66502	Adaptec 2940UW
SCSI UW internal ribbon cable	n/a	M1383-61600	adapter card -> SCSI-HDD
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		
SCSI internal terminator 60 POL	n/a	M1381-61602	active termination
Additional hard disk for storage option: D6938B (9.1GB UW SCSI) D6938C (9.1GB UW SCSI)	 D6463-69003CP D9475-69001CP	 D6463-63003CP D9475-63001CP	See service notes: M1383B-011 and M1383B-023
10/100 LAN card (XA-1st/2nd, XU-2nd)	n/a	5064-6057	HP (D6936A)
Combo LAN/SCSI card (XU)	D5755-69001CP D6331-69301CP	5064-3615CP 5064-6016CP	Two types - check PC for which card is used.
CDROM Drive 32X (XA)	D4384-69031CP	D4384-63031CP	XA internal/external server.
Memory	n/a	n/a	See OB **TraceVue** B.01.00 ISM (M1381-9000M)
Matrox Millennium G200	D5685-63502CP	D5685-69502CP	
Power switch cover	n/a	4535**632**78011	for Kayak XA M1380-44304
Mouse	n/a	C3751-60201CP	

Vectra VL400

Table 11-15 Parts Stocking - Vectra VL400

Description	Part Number		Remarks
	Exchange	New	
Vectra VL400 HP P5068W (1000 MHz) / P3715W (866 MHz)			
System Board	D9820-69009CP D9820-69007CP	D9820-60009CP D9820-60007CP	Replaced by -6x007CP.
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
48X CD-ROM IDE Drive	n/a	D4389-60091CP	
Hard Disk 15 GB IDE	P1591-69001CP D6853-69001CP P2667-69001CP D9812-69001CP	P1591-63001CP D6853-63001CP P2667-63001CP D9812-63001CP	First hard disk for P3715W Second hard disk (HP D7517A)
Hard Disk 20 GB IDE	P2812-69005CP P2833-69001CP	P2812-63005CP P2833-63001CP	First hard disk for P5068W.
Hard Disk 40 GB IDE	P2813-69005CP	P2813-63005CP	Second hard disk (HP P2813A) shipped after 15GB obsolete.
Processor PIII/1000 MHz	P1579-69001CP	P1579-63001CP	1000 MHz (HP P5068W)
Active Heatsink W/Fan	n/a	5065-1297CP	For P5068W only
Processor PIII/866 MHz	D9873-69001CP	D9873-63001CP	866 MHz (HP P3715W)
64 MB non-ECC SDRAM 133MHz DIMM	n/a	P1536-63010CP	
128 MB non-ECC SDRAM 133MHz DIMM	n/a	P1537-63010CP	
256MB non-ECC SDRAM 133MHz DIMM	n/a	P1538-63010CP	
AIMM Video Memory Module	n/a	5184-3852CP	
3.5" 1.44 MB Floppy Disk Drive	n/a	D2035-60293CP	
Lightpen - board PCI (PXL595)	n/a	M1380-66403	
SCSI UW adapter card	n/a	M1381-66404	Symbios (HP D9529A)
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		
Power supply (PFC; 100-240VAC switchable)	n/a	0950-3983CP	
Power switch kit	n/a	5065-0442CP	ribbon cable w/pwr switch, LEDs, intrusion switch.
Power switch cover	n/a	4535**633**36861	M3180-60013

Vectra VL420

Table 11-16 Parts Stocking - Vectra VL420

Description	Part Number		Remarks
	Exchange	New	
Vectra VL420 HP p/n A8183S; Philips p/n M3167-60001 (M3167A)			
System board	P5750-69001CP	P5750-63001CP	
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
PCI SCSI Adapter	n/a	M1381-66404	Symbios Ultra2 SYM8952U
CPU Pentium 4	n/a	P5718-60001CP	1.8 GHz
Hard Disk 20 GB	P2812-69005CP P4736-69003CP P6078-69001CP P5913-69001CP	P2812-63005CP P4736-63003CP P6078-63001CP n/a	7200 rpm Maxtor-A 7200 rpm IMB 7200 rpm Maxtor-V 7200 rpm Seagate
Hard Disk (2nd HDD for storage)	P2813-69005CP	P2813-63005CP	IDE HD 40GB Ultra ATA (HP P2813A)
Video Card	n/a	P6197-63501CP	ATI Rage 128 Pro 32MB
CD-ROM drive	n/a	D4389-60091CP	48x
256 MB SDRAM	n/a	P1538-63010CP	non-ECC
Desktop Power Supply	n/a	P5751-63001CP	180W
Scrolling mouse	n/a	C4737-60001CP	
Floppy Disc drive	n/a	5065-2582CP	
Desktop chassis with cover	n/a	5065-4297CP	
Desktop front bezel	n/a	5065-8901CP	
Control cable kit	n/a	5065-4296CP	Includes front USB. Connectors, and cable, power switch and cable intrusion switch and cable.
Data cable kit	n/a	5065-4298CP	HDD, CDD, FDD cables
Heatsink/fan assy	n/a	P5663-63101CP	
Power switch cover	n/a	4535**634**02071	M1380-41901
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		

Compaq Evo D510

Table 11-17 Parts Stocking - Compaq Evo D510

Description	Part Number		Remarks
	Exchange	New	
Compaq Evo D510 CMT (D51C) HP p/n 470041-299; Philips p/n M3167-60002 (M3167B)			
System Board	4535**63**64311	4535**63**64141	HP 283983-001EX / HP 283983-001
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
PCI SCSI Adapter	n/a	4535**63**63251	Symbios Ultra2 SYM8952U M1381-66404
Pentium 4 Proc (2.0 GHz)	n/a	4535**63**64131	HP 273051-001
Heatsink assembly	n/a	4535**63**64201	HP 289576-001
Hard disk (IDE HD 20GB, 7200 RPM)	4535**63**64321	4535**63**64151	HP 180476-001EX / HP 180476-001
Diskette drive	n/a	4535**63**64211	HP 278644-001
CDROM drive (48X)	n/a	4535**63**64161	HP 232320-001
256MB DDR RAM	4535**63**64361	4535**63**64261	HP 285649-001EX / HP 285649-001 Standard DIMM and extra memory for Web T. Server.
Power supply (PFC, dual voltage)	n/a	4535**63**64191	HP 277979-001
Power switch cover	n/a	4535**63**64371	M1380-41902
Chassis fan ass'y	n/a	4535**63**64181	HP 289575-001
Hood intrusion sensor	n/a	4535**63**64301	HP 267529-001
Internal speaker	n/a	4535**63**64221	HP 249968-001
3V (770) disc battery	n/a	4535**63**64231	HP 153099-001
Front bezel ass'y (complete)	n/a	4535**63**64241	HP 299172-001
2nd serial port card	n/a	4535**63**64251	HP 283984-001 second serial port for PC
Diskette Drive Cable	n/a	4535**63**64271	HP 257309-001
Pwr Switch/LED Cable w/Switch/LEDS	n/a	4535**63**64281	HP 257303-001
IDE HD/CD-ROM Cable	n/a	4535**63**64291	HP 257048-001
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		
PS-2 Mouse (scrolling)	n/a	4535**63**64171	HP 237241-001
Compaq Evo D510 HP p/n: 470058-705; Philips p/n: M3167-60003 (M3167B) (common parts see M3167-60002)			
512 MB DESKTOP MEMORY D510	4535**63**87951	4535**63**87941	HP 285650-001EX / HP 285650-001
2.4GHz P4 Processor	n/a	4535**63**90371	HP 288689-001
40 GB IDE Hard Disk Drive (7200 rpm)	4535**63**77541	4535**63**77531	HP 202904-001EX / HP 202904-001
40 GB IDE Hard Disk Drive (Ultra ATA/100 7200 rpm)	4535**64**02091	4535**64**02081	HP 303593-001EX / HP 303593-001 (2nd hard disk)
Power Supply (PFC)	n/a	4535**63**92471	HP 326333-001

Table 11-17 Parts Stocking - Compaq Evo D510

Description	Part Number		Remarks
	Exchange	New	
Floppy drive bezel (carbon)	n/a	4535**634**93071	HP 257403-001

Compaq D530

Table 11-18 Parts Stocking - Compaq D530

Description	Part Number		Remarks
	Exchange	New	
HP Compaq D530 HP p/n: DR476C #ABA; Philips p/n: M3167-60004 (M3167C)			
Front bezel assembly with sub panel, 5.25" bezel	4535**64**02231	4535**64**02221	HP 336443-001EX / HP 336443-001
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
Power supply, PFC	n/a	4535**64**02241	HP 308615-001
System board with alcohol pad and thermal grease	4535**64**02261	4535**64**02251	HP 323091-001EX / HP 323091-001
PCI SCSI Adapter	see ***Compaq Evo D510*** on page 11-17		
Heatsink for Pentium 4 processors	n/a	4535**64**02271	HP 333866-001
Pentium 2.66 GHz processor	4535**64**02291	4535**64**02281	HP 305579-001EX / HP 305579-001
256 MB/333 MHz FSB SDRAM DIMM Memory	n/a	4535**64**02311	HP 314793-001
512 MB/333 MHz FSB SDRAM DIMM Memory	n/a	4535**64**02321	HP 314796-001
40 GB IDE Hard Disk Drive (7200 rpm)	4535**64**02341	4535**64**02331	HP 286692-001EX / HP 286692-001 (1st hard disk)
40 GB IDE Hard Disk Drive (Ultra ATA/100 7200 rpm)	4535**64**02091	4535**64**02081	HP 303593-001EX / HP 303593-001 (2nd hard disk)
1.44MB, 3.5" Diskette drive with mounting screws	n/a	4535**64**02351	HP 333505-001
48X CD-ROM drive with mounting screws	n/a	4535**64**02361	HP 326773-001
Chassis fan	n/a	4535**64**02371	HP 330457-001
IDE cable, 15.25", two device (108950-047)	n/a	4535**64**02381	HP 336448-001
Power switch/LED cable with switch holder	n/a	4535**64**02391	HP 336447-001
Diskette drive cable (143218-006)	n/a	4535**64**02401	HP 333875-001
IDE cable, 12.5", two device (108950-046)	n/a	4535**64**02411	HP 333876-001
Hood intrusion sensor	n/a	4535**63**64301	HP 267529-001
3V (770) disc battery	n/a	4535**63**64231	HP 153099-001
Power Switch Cover	n/a	4535**64**02431	M3180-40202
2nd serial port w/ribbon cable	n/a	4535**64**26211	HP 341899-001
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		
HP Compaq D530 HP p/n: PF949UC #ABA; Philips p/n: M3167-60006 (M3167D) (common parts see M3167-60004)			
2.8 GHZ Processor	n/a	4535**64**10831	HP 359573-001
80GB Hard Disk Drive	n/a	4535**64**08481	HP A276356 (for Philips) M3167-69019

Compaq dc7100

Table 11-19 Parts Stocking - Compaq dc7100

Description	Part Number		Remarks
	Exchange	New	
HP Compaq dc7100 HP p/n: PM110UC #ABA; Philips p/n: M3167-60007 (M3167E)			
LSI SCSI Card	n/a	4535**64**09301	SYM 8953U (M1381-66405)
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
3.0V battery (20mm diameter - 3.2mm thick)	n/a	4535**634**64231	HP 153099-001
PS/2 two-button scrolling mouse	n/a	4535**64**16431	HP 323614-005
IDE CD-ROM drive (Carbonite) - 48X CD-ROM	n/a	4535**64**16441	HP 326773-005
1.44MB - 3.5in floppy disk drive	n/a	4535**64**16451	HP 333505-005
256MB - 400MHz - DDR-SDRAM (PC3200)	n/a	4535**64**16461	HP 335698-005 (HP DE466G)
512MB - 400MHz - DDR- SDRAM (PC3200)	n/a	4535**64**18421	HP 335699-005 (HP DE467G)
Side access cover	n/a	4535**64**16471	HP 336444-005
Front mounted Audio/USB board	n/a	4535**64**16481	HP 336446-005
Switching power supply - 100-240VAC input	n/a	4535**64**16491	HP 349987-001
40GB Serial ATA/150 IDE hard drive - 7200 RPM	n/a	4535**64**16511	HP 365555-001 (1st hard disk)
80GB\7200 SATA hard drive	4535**64**18441	4535**64**18431	HP 345713-005EX / 345713-005 (HP DE705) (2nd hard disk)
System motherboard	4535**64**16671	4535**64**16521	HP 365865-001EX / 365865-001
Heat sink assembly	n/a	4535**64**16531	HP 366639-001
Fan assembly - 92mm	n/a	4535**64**16541	HP 366641-001
Intel Pentium 4 processor 520 - 2.8GHz	n/a	4535**64**16551	HP 367594-001
Front bezel assembly	n/a	4535**64**16561	HP 371116-001
Speaker	n/a	4535**64**26151	HP 326776-005
PCI extender card	n/a	4535**64**02471	HP 252609-001
IDE cable, 17.25", two device	n/a	4535**64**26171	HP 366640-001
Diskette drive cable	n/a	4535**64**26181	HP 371511-001
SATA hard drive cable	n/a	4535**64**26191	HP 346141-005
Power switch/LED cable without switch holder	n/a	4535**64**26201	HP 367595-001
2nd serial port card	n/a	4535**64**26221	HP 283984-005
Serial port cable, 31.4cm (12.38in) for 283984-005	n/a	4535**64**26231	HP 302652-005
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		

Compaq dc7600

Table 11-20 Parts Stocking - Compaq dc7600

Description	Part Number		Remarks
	Exchange	New	
HP Compaq dc7600 HP p/n: EH618UC #ABA; Philips p/n: M3167-60009 (M3167F)			
PCI SCSI card	n/a	4535**64**023991	Adaptec 29160; 1821900 (M1381-66403)
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
3.0V battery (20mm diameter - 3.2mm thick)	n/a	4535**63**464231	HP 153099-001
PS/2 two-button scrolling mouse	n/a	4535**64**026451	HP 390937-001
IDE CD-ROM drive (Carbonite) - 48X CD-ROM	n/a	4535**64**016441	HP 326773-005
1.44MB - 3.5in floppy disk drive	n/a	4535**64**026461	HP 392415-001
512MB - 533MHz - DDR2 SDRAM (PC4200)	n/a	4535**64**026471	HP 393393-001 (HP PV560AA)
Side access cover	n/a	4535**64**026481	HP 392405-001
Front mounted Audio/USB board	n/a	4535**64**026491	HP 392408-001
Switching power supply - 100-240VAC input	n/a	4535**64**026501	HP 381023-001
40GB Serial ATA/150 IDE hard drive - 7200 RPM	n/a	4535**64**016511	HP 365555-001 (client, standard servers)
80GB\7200 3 Gp/s SATA hard drive	n/a	4535**64**026641	391945-001 (HP PY276AA) (2nd hard disk - standard server w/storage)
System motherboard	n/a	4535**64**026511	HP 380356-001
Heat sink assembly	n/a	4535**64**026531	HP 382023-001
Chassis Fan	n/a	4535**64**026541	HP 392412-001
Intel Pentium4 3.0 GHz\800 MHz FSB, 1MB cache, 531	n/a	4535**64**026551	HP 394642-001
Front bezel assembly	n/a	4535**64**016561	HP 371116-001
Speaker	n/a	4535**64**026561	HP 392413-001
Second Serial Port	n/a	4535**64**026571	HP 392414-001
IDE cable, ODD, 17.25", two device	n/a	4535**64**026581	HP 392286-001
Diskette drive cable	n/a	4535**64**026591	HP 392288-001
SATA hard drive cable, 13"	n/a	4535**64**026601	HP 391738-001
Power switch/LED cable without switch holder	n/a	4535**64**026611	HP 392285-001
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** on page 11-10		

NetServer LC2000

Table 11-21 Parts Stocking - NetServer LC2000

Description	Part Number		Remarks
	Exchange	New	
NetServer LC2000 P2478W (1000 MHz) P2478U (1000 MHz) P1802U (933 MHz)			
CPU board (Ultra-3 SCSI)	4535**63**04221	4535**63**4211	HP P2478W Server (P1798-69001CP / P1798-63001CP)
CPU board (Ultra-2 SCSI)	4535**63**20051	4535**63**19941	HP P2478U / P1802U Servers (D8520-69000CP / D8520-63000CP)
Processor PIII/1000	4535**63**55641	4535**63**55631	1000 MHz / HP P2488A (P2488-69001CP / P2488-63001CP)
Processor PIII/933	4535**63**55611	4535**63**55601	933MHz / HP P1807A (P1807-69001CP / P1807-63001CP)
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
18GB HOT Swap Hard Disk Drive	4535**63**04181	4535**63**4171	Rev-C.01 (HP P1166A) RAID - P2478W Server (P1166-69003CP / P1166-63003CP)
18GB HOT Swap Hard Disk Drive	4535**63**55441	4535**63**55431	Rev-C.00 (HP P1216A) RAID - P2478U / P1802U Server (P1216-69001CP / P1216-63001CP)
9GB Ultra3 SCSI drive	4535**63**55421	4535**63**55411	Rev. B.01 (HP P1213A) - non-RAID drives (P1213-69001CP / P1213-63001CP) LC2000 requires RAID for Rev C and above.
256 MB 133 MHz ECC SDRAM DIMM	4535**63**19851	4535**63**19841	P2478W PC (D8266-69001CP / D8266-63001CP)
128 MB 133 MHz ECC SDRAM DIMM	4535**63**19831	4535**63**19821	(D8265-69001CP / D8265-63001CP)
NetRAID 1M Card	4535**63**88301	4535**64**18631	P3410-63001CP/-69001CP changed to: P3410-63003CP/-69003CP
Power Supply	4535**63**20061	4535**63**19951	(D8520-69001C / D8520-63001C)
HOT Swap Drive Cage Assembly	n/a	4535**63**19971	(D8520-63003C)
48X CD-ROM Drive	n/a	4535**63**17701	(D4384-63003CP)
System Battery	n/a	4535**63**20011	(D8520-63012CP)
3.5" 1.44 MB Floppy Disk Drive	n/a	4535**63**14771	(D2035-60282CP)
Voltage Regulator Module	n/a	4535**63**19991	(D8520-63010CP)
Control Panel with cable	n/a	4535**63**20001	(D8520-63011CP)
Internal-to-External SCSI cable	n/a	4535**63**20091	To optical drives (HP D8600A)
Mouse	n.a	4535**63**12481	(C3751-60201CP)
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** *on page 11-10*		

Compaq ProLiant ML370

Table 11-22 Parts Stocking - Compaq ProLiant ML370

Description	Part Number		Remarks
	Exchange	New	
Compaq ProLiant ML370-G2 HP p/n 304092-001; Philips p/n M3168-60001 (M3168A)			
System board	4535**63**64661	4535**63**64431	HP 230998-001EX / HP 230998-001
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
Diskette drive, 1.44-MB	n/a	4535**63**64441	HP 233409-001
CD-ROM drive, IDE, 40x	n/a	4535**63**64451	HP 233408-001
3.3V lithium battery	n/a	4535**63**64461	HP 179322-001
Pentium III Processor (1.4GHz)	n/a	4535**63**64471	HP 259594-001
Processor Power Module	n/a	4535**63**64481	HP 228506-001
18.2GB 10K RPM HS Hard Disk (Ultra-3)	4535**63**64671	4535**63**64491	HP 152190-001EX / HP 152190-001
36.4-GB 10K Hot Swap Ultra320 SCSI	4535**63**90521	4535**63**90511	HP 289041-001EX / HP 289041-001
6 x 1 in hot-plug SCSI drive cage w/backplane	4535**63**64681	4535**63**64501	HP 230995-001EX / HP 230995-001
Smart Array 5i-Plus Controller	4535**63**64691	4535**63**64511	HP 274400-001EX / HP 274400-001
Battery Pack, NMH, 4.8V, 360MAH	n/a	4535**63**64521	HP 260740-001 BBWC module for 5I-Plus RAID controller
256MB 133 MHz SDRAM (DIMM)	n/a	4535**63**64531	HP 159377-001 Single DIMM; installed in pairs at factory Memory installed in identical pairs (2 x 256 = 512MB)
Power supply backplane	n/a	4535**63**64541	HP 230982-001
Power supply, 500W	4535**63**64701	4535**63**64551	HP 230993-001EX / HP 230993-001
Power button/LED ass'y	n/a	4535**63**64561	HP 230986-001
Fans, 92 mm	n/a	4535**63**64571	HP 231213-001
PCI Hot Plug backplane	n/a	4535**63**64581	HP 230981-001
Front bezel	n/a	4535**63**64591	HP 230996-001
Hard drive blank	n/a	4535**63**64601	HP 122759-001
Removable media blanks	n/a	4535**63**64611	HP 231212-001
Misc. data cable kit (see Compaq Maintenance and Service Guide for details)	n/a	4535**63**64621	HP 230988-001
Misc. power cable kit (see Compaq Maintenance and Service Guide for details)	n/a	4535**63**64631	HP 230987-001
Misc. Plastics kit	n/a	4535**64**10341	HP 230979-001
Hardware kit	n/a	4535**64**10351	HP 230980-001
Wall, center	n/a	4535**64**10371	HP 230999-001
Access panel (top cover)	n/a	4535**64**10361	HP 230985-001
Tower hood cover	n/a	4535**64**10381	HP 233410-001
2 button mouse	n/a	4535**63**64641	HP 113907-001

Table 11-22 Parts Stocking - Compaq ProLiant ML370

Description	Part Number		Remarks
	Exchange	New	
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** *on page 11-10*		
HP ProLiant ML370-G3 HP p/n: 341419-001; Philips p/n: M3168-60002 (M3168B) (common parts see M3168-60001)			
36.4-GB 10K Hot Swap Ultra320 SCSI	4535**63**490521	4535**63**490511	HP 289041-001EX / HP 289041-001
SCSI Backplane w/6 x 1-inch drive cage	n/a	4535**63**494591	HP 262171-001
CD-ROM drive - IDE - 48X	n/a	4535**63**494601	HP 288894-001
Processor power module (PPM)	n/a	4535**63**494611	HP 289564-001
Intel Xeon 2.4-GHz proc w/heatsink	4535**63**94631	4535**63**94621	HP 290558-001EX / HP 290558-001
System board with proc cage	4535**63**494651	4535**63**494641	HP 290559-001EX / HP 290559-001
Miscellaneous data cable kit	n/a	4535**63**494661	HP 292229-001
256-MB DDR DIMM PC2100 - 1.2-in	4535**63**494681	4535**63**494671	HP 300699-001EX / HP 300699-001 Single DIMM; installed in pairs at factory
Smart Array 641 Controller	4535**63**94701	4535**63**94691	HP 305414-001EX / HP 305414-001
64MB battery backed write cache (BBWC)	n/a	4535**63**94711	HP 305416-001 (includes battery; Mem -DDR -40bit w/ Battery)
3.6-V battery pack - 500mAH (NiMH)	n/a	4535**64**025451	HP 307132-001 (for BBWC module)
Hard drive blank	n/a	4535**64**010391	HP 313046-001
Mouse - CB	n/a	4535**63**94721	HP 311060-001
HP ProLiant ML370-G3 HP p/n: 351371-001; Philips p/n: M3168-60003 (M3168C) (common parts see M3168-60002)			
Intel Xeon 2.8-GHz proc w/heatsink	4535**64**001191	4535**64**001181	HP 307103-001EX / HP 307103-001
HP ProLiant ML370-G3 HP p/n: 371920-001; Philips p/n: M3168-60004 (M3168D) (common parts see M3168-60002)			
Processor, Intel Xeon 3.06-GHz	4535**64**006591	4535**64**005531	HP 314669-001EX / HP 314669-001
72.8-GB HS Ultra 320 SCSI HDD - New	n/a	4535**64**010331	HP 289042-001 (for ref only: M3168-69019)
PC2100 - 512MB - DDR DIMM(ML370)	4535**64**003261	4535**63**495491	HP 300700-001EX / HP 300700-001 Single DIMM; installed in pairs at factory
1-GB PC2100 DDR Memory	n/a	4535**64**008451	HP 300701-001 Single DIMM; installed in pairs at factory
Front bezel (tower model only)	n/a	4535**64**010421	HP 319600-001
System board w/proc cage	4535**64**010411	4535**64**010401	HP 316864-001EX / 316864-001

HP Proliant ML350

Table 11-23 Parts Stocking - HP ProLiant ML350

Description	Part Number		Remarks
	Exchange	New	
HP ProLiant ML350-G4 HP p/n: 375415-001; Philips p/n: M3168-60005 (M3168E)			
LSI SCSI Card	n/a	4535**64**09301	SYM 8953U (M1381-66405)
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
Removable media blanks	n/a	4535**63**4611	HP 231212-001
SCSI Hard drive blank	n/a	4535**64**14001	HP 319602-001
Fan assembly, 120 mm	n/a	4535**64**14021	HP 367637-001
3.0-V lithium battery	n/a	4535**64**14031	HP 234556-001
128MB battery backed write cache (BBWC)	n/a	4535**64**25321	HP 351518-001 (includes battery)
3.6-V battery pack - 500mAH (NiMH)	n/a	4535**64**25451	HP 307132-001 (for BBWC module)
Heatsink	n/a	4535**64**14041	HP 366866-001
Intel Xeon 3.00-GHz w/800-MHz system bus	n/a	4535**64**14051	HP 366864-001
Processor power module (PPM)	n/a	4535**64**14061	HP 347884-001
Power supply, 725-watt, hot plug	4535**64**14081	4535**64**14071	HP 365063-001EX / 365063-001
System board with processor cage	4535**64**14101	4535**64**14091	HP 365062-001EX / 365062-001
Hard drive cage w/SCSI simplex backplane	n/a	4535**64**14111	HP 366862-001
Power supply backplane	n/a	4535**64**14121	HP 365065-001
Diskette drive, 3-mode, 1.44-MB with USB	n/a	4535**64**14131	HP 372058-001
CD-ROM drive - IDE - 48X	n/a	4535**63**4601	HP 288894-001
Power switch	n/a	4535**64**14141	HP 292236-001
Miscellaneous signal cable kit	n/a	4535**64**14151	HP 163353-001
512-MB DDR DIMM PC2700	n/a	4535**64**14161	HP 370780-001
1-GB DDR DIMM PC2700	n/a	4535**64**14171	HP 367167-001
Second Serial Port	n/a	4535**64**14191	HP 372657-001
Mouse	n/a	4535**64**14201	HP 344704-001
72.8-GB HS Ultra 320 SCSI HDD	n/a	4535**64**10331	HP 289042-001
Smart Array 641 Controller	4535**63**4701	4535**63**4691	HP 305414-001EX / 305414-001
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** *on page 11-10*		
HP ProLiant ML350-G4p HP p/n: 395991-001; Philips p/n: M3168-60006 (M3168F)			
PCI SCSI Card	n/a	4535**64**23991	Adaptec 29160; 1821900 (M1381-66403)

Table 11-23 Parts Stocking - HP ProLiant ML350

Description	Part Number		Remarks
	Exchange	New	
Network Interface Card (NIC)	See ***Accessories*** on page 11-5		
Removable media blanks	n/a	4535**63**4611	HP 231212-001
SCSI Hard drive blank	n/a	4535**64**14001	HP 319602-001
Fan assembly, 120 mm	n/a	4535**64**14021	HP 367637-001
3.0-V lithium battery	n/a	4535**64**14031	HP 234556-001
128MB battery backed write cache (BBWC)	n/a	4535**64**25321	HP 351518-001 (includes battery)
3.6-V battery pack - 500mAH (NiMH)	n/a	4535**64**25451	HP 307132-001 (for BBWC module)
Heatsink	n/a	4535**64**14041	HP 366866-001
Intel Xeon 3.2-GHz w/800-MHz system bus	n/a	4535**64**26071	HP 383036-001
Processor power module (PPM)	n/a	4535**64**14061	HP 347884-001
Hot-plug pwr-supply, 725W	4535**64**26091	4535**64**26081	HP 390394-001EX / 390394-001
System board	4535**64**26111	453564026101	HP 390546-001EX / 390546-001
Hard drive cage w/SCSI simplex backplane	n/a	4535**64**14111	HP 366862-001
Power supply backplane	n/a	453564026121	HP 390548-001
Diskette drive, 3-mode, 1.44-MB with USB	n/a	4535**64**14131	HP 372058-001
CD-ROM drive - IDE - 48X	n/a	4535**63**94601	HP 288894-001
Power switch	n/a	4535**64**14141	HP 292236-001
Miscellaneous signal cable kit	n/a	4535**64**14151	HP 163353-001
512-MB DDR2 DIMM PC2-3200	n/a	4535**64**22881	HP 359241-001
1-GB DDR2 DIMM PC2-3200	n/a	4535**64**26131	HP 359242-001
Second Serial Port	n/a	4535**64**26141	HP 391183-001
Mouse	n/a	4535**64**14201	HP 344704-001
72.8-GB HS Ultra 320 SCSI HDD	n/a	4535**64**10331	HP 289042-001
Smart Array 641 Controller	4535**63**94701	4535**63**94691	HP 305414-001EX / 305414-001
External SCSI cables (for optical drive/s and autochanger)	See ***Optical Drives*** *on page 11-10*		

PC Common Parts

Table 11-24 Parts Stocking - PC Common Parts

Description	Part Number		Remarks
	Exchange	New	
PC Common Parts			
Keyboard	n/a	C4735-60301CP C4735-603xxCP	HP C4735A (US) (Other geographies)
Keyboard	n/a	M3180-60310 M3180-603xx	HP C4735B (US) (Other geographies)
Keyboard (Compaq) HP 296435-xxx (M3180-6033x, 4x, 5x) replaced by HP DT527A #Axx (M3180-6035x, 6x, 7x)	n/a	4535**64**11311 M3180-60355	Taiwan Chinese
		4535**64**11331 M3180-60357	US English
		4535**64**11341 M3180-60358	Canada French
		4535**64**11351 M3180-60359	German
		4535**64**11361 M3180-60360	Spain Spanish
		4535**64**11371 M3180-60361	French
		4535**64**11381 M3180-60362	Dutch
		4535**64**11391 M3180-60363	Japan
		4535**64**11401 M3180-60364	Latin America Spanish
		4535**64**11421 M3180-60366	Swiss German
		4535**64**11431 M3180-60367	Swedish
		4535**64**11451 M3180-60369	UK English
		4535**64**11461 M3180-60370	Belgium French
		4535**64**11481 M3180-60372	Italian
		4535**64**11491 M3180-60373	Simplified Chinese

Table 11-24 Parts Stocking - PC Common Parts

Description	Part Number		Remarks
	Exchange	New	
Keyboard Covers (VIZIFLEX SEELS)	n/a	 9300-2175 9300-2174 M3180-40005 M3180-40006 4535**64**02891 4535**64**02901 4535**64**02911 4535**64**11501 4535**64**11511 4535**64**11521	**For previous HP keyboards** C4735A (US) C4735A (non-US) C4735B (US) C4735B (non-US) **For HP/Compaq D510, d530** (US, Taiwan), M3180-40010 (#101) (other), M3180-40011 (#102) (Japan), M3180-40012 (#106) **For HP dc7100/dc7600, ML350-G4/G4p** M3180-40013 (104-key) M3180-40014 (105-key) M3180-40015 (109-key)

SW Media and Documentation

Table 11-25 Parts Stocking - SW Media and Documentation

Description	Part Number		Remarks
	Exchange	New	
OB TraceVue SW Media and Documentation (no licenses - for replacement of lost, damaged or defective media only)			
OB **TraceVue D.01.13** SW Kit (D.01.12 SW kit will not be shipped)	n/a	4535**64**026961	bootable server & client CDs M1381-10513 **CD revision 1** (check the file **\unattend\CD.txt** on the CD)
OB **TraceVue D.01.13** Documentation CD (D.01.12 documentation CD will not be shipped)	n/a	4512**61**011081	M1381-9301T, includes all languages. Includes all documentation for all currently supported OB TraceVue software revisions. Available from Globalware Solutions at +1-800-527-68671 (using pn M1381-9301T)
OB **TraceVue D.01.11** SW Kit		4512**61**007701	bootable server & client CDs M1381-10512 **CD revision 1** (check the file **\unattend\CD.txt** on the CD)
OB **TraceVue D.01.10** SW Kit		4535**64**004081	bootable server & client CDs M1381-10508 **CD revision 1** (check the file **\unattend\CD.txt** on the CD)
OB **TraceVue D.01.10** Computer Based Training CD	n/a	4512**61**004151	M1381-9370B. English only. Available from Globalware Solutions at +1-800-527-68671 (using pn M1381-9370B) This computer based training is suitable for D.01.13 systems.
OB **TraceVue D.01.10** Training System Software Kit	n/a	4535**64**004091	M1381-10509 This training system software is suitable for D.01.13 systems.
MS Office 2003 (replacement media only - not for upgrades)			
Office 2003 Basic OEM - English	n/a	4512**61**001781	M1385-10801
Office 2003 Basic OEM - Finnish	n/a	4512**61**001791	M1385-10802
Office 2003 Basic OEM - French	n/a	4512**61**001801	M1385-10803
Office 2003 Basic OEM - German	n/a	4512**61**001811	M1385-10804
Office 2003 Basic OEM - Italian	n/a	4512**61**001821	M1385-10805
Office 2003 Basic OEM - Japanese	n/a	4512**61**001831	M1385-10806
Office 2003 Basic OEM - Simplified Chinese	n/a	4512**61**001841	M1385-10807
Office 2003 Basic OEM - Spanish	n/a	4512**61**001851	M1385-10808
Office 2003 Basic OEM - Traditional Chinese	n/a	4512**61**001861	M1385-10809
Office 2003 Basic OEM - Dutch	n/a	4512**61**001871	M1385-10810

UPS Parts

Table 11-26 Parts Stocking - UPS Parts

	US[1]	Europe, AP[1]	Japan[1]
Standard (networked) Internal Server **Highend Servers (All)** (mandatory RS-232 cable connection)	**Smart-UPS 1000** SUA1000 (120V) Repl. UPS p/n: M3882-60001 4535**63**403801 **Battery:** RBC6-APC (4535**63**56571) **Cable:** M3180-60194 (4535**63**36981) APC p/n 940-0024C	**Smart-UPS 1000I** SUA1000I (230V) Repl. UPS p/n: M3883-60001 4535**63**78591 **Battery:** RBC6-APC (4535**63**56571) **Cable:** M3180-60194 (4535**63**36981) APC p/n 940-0024C	**Smart-UPS 1000J** SUA1000J (120V) Repl. UPS p/n: M3884-60001 4535**63**498211 **Battery:** RBC6-APC (4535**63**56571) **Cable:** M3180-60194 (4535**63**36981) APC p/n 940-0024C
Standalone Internal Server **Standard External Server** **Standard WEB/Terminal Server** **Clients** (optional RS-232 cable connection)	**Back-UPS 650**[2] BK650MC (120V) Repl. UPS p/n: 0950-3405 4535**63**044611 **Battery:** RBC4-APC (4535**63**56561) RBC3-APC (4535**63**56551) if s/n <xx9828 **Cable**: source locally APC p/n 940-0020C --- **Smart-UPS 620** SC620 (120V) Repl. UPS p/n: M3156-60014 (4535**64**017071) **Battery**: RBC4-APC (4535**63**56561) **Cable**: M3180-60194 (4535**63**36981) APC p/n 940-0024C	**Back-UPS 650** [2] BK650MI (230V) Repl. UPS p/n: 0950-3406 4535**63**044621 **Battery:** RBC4-APC (4535**63**56561) RBC3-APC (4535**63**56551) if s/n xx9784 .. xx9803 **Cable**: source locally APC p/n 940-0020C --- **Smart-UPS 620** SC620I (230V) Repl. UPS p/n: M3158-60016 (4535**64**017081) **Battery**: RBC4-APC (4535**63**56561) **Cable**: M3180-60194 (4535**63**36981) APC p/n 940-0024C	**Smart-UPS 1000J** SUA1000J (120V) Repl. UPS p/n: M3884-60001 (4535**63**498211) **Battery**: RBC6-APC (4535**63**56571) **Cable**: M3180-60194 (4535**63**36981) APC p/n 940-0024C

1. Other geographies may also use the UPS. Internal factory rules determine what ships to a particular geography.
2. Back-UPS 650: Initial APC production started with two 6V batteries and changed later to one 12V battery. It is **not** recommended to install two 6V batteries into a UPS shipped with a 12V battery because lead wire routing was changed, battery specifications are slightly different, and the jumper cable to connect the two batteries in series is unavailable. Also, it is **not** recommended to install a 12V battery into a UPS shipped with two 6V batteries because of lead wire routing and battery specification considerations mentioned above.

12
Component Installation (Upgrade/repair)

Introduction

This chapter provides brief installation instructions for hardware components. These components are supplied to upgrade or repair existing systems.

Any hardware settings or software procedures given are generic. Refer to the chapter in this manual that describes the particular PC you are working on.

For details about installing components such as a hard drive or CD-ROM drive, consult the *User's Guide* that comes with the PC you are working on. This tells you how to safely remove and replace items such the PC's cover, or power supply. Instructions given here are OB **TraceVue** specific requirements and are additional to instructions given in the PC's *User's Guide*.

Static electricity can damage electronic components. To prevent damage, observe standard handling precautions. Refer to ***Electrostatic Handling Precautions*** on page 2-17.

When you have installed the hardware component you may have to install the driver software required to allow the PC to communicate with that component.

- If the OB **TraceVue** shell is switched on, you cannot access the desktop. You must temporarily disable the Shell while you perform the repair or upgrade. Remember to switch it back on afterwards.

Software Distribution

Driver software for OB **TraceVue** components is distributed on the OB **TraceVue** CD-ROM. For new components, driver software may be temporarily distributed on floppy disk until the OB **TraceVue** CD-ROM is updated.

Note Do not install driver software from another source (such as a printer CD-ROM or the web) unless specifically instructed to do so by, for example, a Service Note.

Floppy Disk The floppy drive fitted to an OB **TraceVue** PC is disabled after software installation.

To enable (or disable) floppy disk drives see ***Disable Flexible Disk Drives on page 5-30***.

PC System Board Replacement

If you exchange the PC system board, you must flash the BIOS, if:

- The BIOS revision is less than the revision originally shipped with the OB **TraceVue** PC or
- If the original BIOS version shipped cannot be determined, and the current BIOS version on the PC is less than the revision on the OB **TraceVue** server CD-ROM for the specific PC model.

Note After you have flashed the BIOS, follow the instructions in the OB **TraceVue** Test and Inspection Matrix (***Repair - PC (display, internal PC components)*** on page 2-15).

Only use BIOS revisions on the OB **TraceVue** server CD-ROM (do not download BIOS revisions from the HP website).

Check that the BIOS settings are correct: Refer to the appropriate chapter in this manual for the PC you are using.

Additional Memory

For instructions on the installation of additional memory refer to the *User's Guide* for the PC on which you are working.

Lightpen Interface Board

A lightpen can be used with a CRT PC display monitor, but **not** with a flat panel PC display monitor.

Slot Assignment

Ensure that you fit the lightpen board into the correct slot, as detailed in the chapter of the PC you are installing: *Slot Assignment for ...*

M1370-66510 only

Before fitting the lightpen interface board, set its Base I/O address DIP switch and IRQ jumper. Refer to the chapter of the PC you are installing: *Lightpen Settings for ...*

Connecting and Fitting

Refer to ***Connect Lightpen*** on page 5-14.

Soundcard and Loudspeaker

Installation

Slot Assignment

Ensure that you fit the soundcard board into the correct slot, as detailed in the chapter of the PC you are installing:

- ***Slot Assignments for HP Kayak XA*** on page 22-2

PCs which are not listed have an onboard soundcard.

Installing the Driver

Soundcards are automatically detected by Windows. The correct software driver is automatically loaded. No manual configuration is necessary.

Connecting

Connect the internal PC loudspeaker to the soundcard. Do not connect external speakers.

Check Event Log

Make sure that all the cards fitted to the PC are working and that there are no resource allocation conflicts reported in the event log.

Volume

To Test the Volume used for Alerts

- Go to the **Control Panel**, start **Sounds and Multimedia**.
- Select an OB **TraceVue** sound event (e.g. **Red Alert**).
- Click

To Adjust the Volume

Double-click **Volume Control**. The volume control is the small speaker icon located on the bottom right of the screen.

To Mute a PC fitted with a Sound Card

If it is important that the PC is always quiet:

- In the **Volume Control**, select **Mute all**.

Network Interface (LAN) Card

Fit the network interface card into the appropriate PC slot. The slot numbers are listed in the chapter for the appropriate PC type. When replacing a LAN card, you do not have to re-install its driver.

Refer to ***Second Network Interface Card*** on page 17-20.

PCI RS-232 Serial I/F Card M1380-66501 (for all PCs except dc7600)

The PCI RS-232 Serial Interface card:

- Is suitable for all PCs. It provides two additional RS-232 ports, COM3 and COM4.
- Has no switches, or jumpers. All settings are made using the software driver.
- Requires one PC IRQ. This IRQ is automatically selected by the PCI system.
- Provides two identical 9-pin D-type serial ports.

dc 7600 requires serial interface card M1380-60501.

Fitting the PCI RS-232 Serial Interface Card

1. Power down the PC and fit the PCI Serial Interface card in the correct PCI slot. Refer to the section in this manual for the PC you are working on.
2. Windows should detect the new hardware and ensure that the driver is installed. If it does not, and you have to install the driver manually Windows 2000 will ask for the path to the driver so it can automatically select the required files and install the device. The path is: **C:\Drivers\Serial**
3. Test the port using FMSpy.

Using FMSpy to Test the COM Ports

You can use the FMSpy utility to test each COM port on a PC, and test signal transmission from the fetal monitor(s) connected to that PC.

At the PC where you wish to run FMSpy:

1. Exit OB **TraceVue** (if this is an OB **TraceVue** client, there is no need to exit OB **TraceVue** at the server or at other clients).
2. Go to **OB TraceVue Support** → **Spy**
3. Select each port in turn then from the drop-down list.
   The field next to the **Port** field is color coded to show you the current status of the port.

For more information about the FMSpy utility, refer to ***Fetal Monitor Spy (FMSpy)*** on page 14-14.

CD-ROM Drive

Caution: **When installing or replacing the CD-ROM drive check drive letter assignment after you have installed the new drive. Refer to *Checking and Changing Drive Letters* on page 17-17.**

The CD-ROM drive fits on a mass-storage device shelf.

For general instructions on the installation of mass-storage devices refer to the *User's Guide* for the PC on which you are working. More detailed information is available in the PC's *Service Manual*.

Make sure that:

- The CD-ROM drive is connected to the special CD-ROM ribbon cable (red connector), rather than the same IDE port as the IDE hard disk.
- The jumper at the back of the CD-ROM drive is set to **Cable Select**
- The CD-ROM drive is connected to the **Master** connector.

Primary Hard Disk Drive

Caution: **When installing or replacing a hard disk check drive letter assignment after you have installed the new disk. Refer to *Checking and Changing Drive Letters* on page 17-17.**

The primary hard disk drive fits on a mass-storage device shelf.

For general instructions on the installation of mass-storage devices refer to the *User's Guide* for the PC on which you are working. More detailed information is available in the PC's *Service Manual*.

When you have installed the hardware, you must format and partition the disk.

Caution: **All data on the hard disk will be lost.**

Deleting an Existing Partition

Please follow the instructions provided below very carefully. If you make a mistake, you must low level format the hard disk. This may take several hours.

1. Insert the OB **TraceVue** boot disk into drive A:.
2. Boot the PC.
3. Select **Start FDISK utility**.

   The **FDISK** Utility is started, and its main menu is displayed.
4. Enter **3** to select **Delete Partition or Logical DOS Drive**.
5. Enter **4** to select **Delete Non-DOS Partition**. A warning message is displayed if there is no Non-DOS partition to delete.
6. Enter **1** to select the non DOS partition you wish to delete.
7. Enter **Y** to confirm. The message **Non-DOS Partition deleted** is displayed.
8. Press **Esc** to return to the FDISK Utility main menu.
9. Verify that you have deleted your partition. To do this select **4. Display partition information**. The following information is displayed:

   Current fixed disk drive:1
10. Press **Esc** to return to the FDISK Utility main menu.
11. You are now ready to create a new partition, as described below.

Partitioning the Drive

Before you create a new partition you must have completed the procedure outlined in above for every existing partitions.

1. With the FDISK Utility running, enter **1** to select **Create DOS Partition or Logical DOS Drive**.
2. Select **1** to create a primary DOS partition.

   The following message is displayed:
   Do you wish to use maximum available size for a Primary DOS Partition and make the Partition active [Y/N]
3. Enter **Y** to select maximum size.

Press any key to reboot the PC.

SCSI Host Adapter

This applies only to a server with storage, and to the highend external server ML 350 G4.

Host Adapter Types

M1380-66502 (Kayak XA) This card supports the SCSI Ultra Wide protocol. The card is fitted with HDTS68 Wide internal and external bus connectors. Do not replace this card by another SCSI host adapter supplied as part of an upgrade.

External Interface (Kayak XU) The Kayak XU has an onboard SCSI host adapter. The external interface card is supplied and installed with the PC. Do not replace this card by another SCSI host adapter supplied as part of an upgrade.

M1381-66404 (VL400, VL420, EVO D510, D530) This card supports the SCSI Ultra2 protocol. The card is fitted with HDTS68 Wide internal and external bus connectors.

M1381-66405 (ProLiant ML 350G4, dc7100) This card supports the SCSI Ultra2 protocol. The card is fitted with HDTS68 Wide internal and external bus connectors.

LC2000, ProLiant ML 370 The PC has an onboard SCSI host adapter.

M1381-66403 (ProLiant ML 350G4P, dc7600) This card supports the SCSI Ultra 160 and Ultra2 protocol. The card is fitted with HDTS68 (LVD/SE) internal and external bus connectors.

Slot Assignment

Refer to the appropriate chapter for the PC you are installing:

- ***Slot Assignments for HP Kayak XA*** on page 22-2
- ***Slot Assignments for HP Kayak XU*** on page 23-2
- ***Slot Assignments for HP Vectra VL 400*** on page 24-2
- ***Slot Assignments for HP Vectra VL 420*** on page 25-2
- ***Slot Assignments for HP NetServer LC2000*** on page 26-2
- ***Slot Assignments for Compaq Evo D510*** on page 27-2
- ***Slot Assignments for HP Compaq D530*** on page 28-2
- ***Slot Assignments for HP Compaq dc7100*** on page 33-2
- ***Slot Assignments for HP Compaq dc7600*** on page 34-2
- ***Slot Assignments for Compaq ProLiant ML370 G2*** on page 29-1
- ***Slot Assignments for HP ProLiant ML370 G3*** on page 30-1
- ***Slot Assignments for HP ProLiant ML350 G4*** on page 31-1
- ***Slot Assignments for HP ProLiant ML350 G4P*** on page 32-1
- ***Slot Assignments for HP Compaq dc7600*** on page 34-2
- ***Slot Assignments for HP ProLiant ML350 G4P*** on page 32-1

SCSI BIOS

Refer to the appropriate chapter for the PC you are installing:

- ***SCSI BIOS Settings for HP Kayak XA*** on page 22-9
- ***SCSI BIOS Settings for HP Kayak XU*** on page 23-9
- ***SCSI BIOS Settings for HP Vectra VL 400*** on page 24-4
- ***SCSI BIOS Settings for HP Vectra VL 420*** on page 25-4
- ***SCSI BIOS Settings for HP Netserver LC2000 (HP P2478U / P1802U)*** on page 26-5
- ***SCSI BIOS Settings for Compaq Evo D510*** on page 27-5
- ***SCSI BIOS Settings for HP Compaq D530*** on page 28-5
- ***SCSI BIOS Settings for HP Compaq dc7100*** on page 33-5
- ***SCSI BIOS Settings for HP Compaq dc7600*** on page 34-5
- ***SCSI BIOS Settings for Compaq ProLiant ML370 G2*** on page 29-3
- ***SCSI BIOS Settings for HP ProLiant ML370 G3*** on page 30-3
- ***SCSI BIOS Settings for HP Proliant ML350 G4*** on page 31-4
- ***SCSI BIOS Settings for HP Proliant ML350 G4P*** on page 32-4

Secondary Hard Disk Drive (for Storage Systems)

Caution: **When installing or replacing a hard disk check drive letter assignment after you have installed the new drive. Refer to *Checking and Changing Drive Letters* on page 17-17.**

When upgrading from a non-storage system to a storage system, you must install a second hard disk.
For general instructions on the installation of mass-storage devices refer to the *User's Guide* for the PC on which you are working. More detailed information is available in the PC's *Service Manual*.

Note The secondary disk drive discussed in this section is the D:Drive!

Disk Installation

IDE Hard Disk (VL400, VL 420 Evo D510, D530)/ SATA Hard Disk (dc7100/dc7600)

The second drive should be jumpered to **Cable Select (CS)**, and fitted into the next free mass storage device shelf.

Refer to the appropriate chapter for the PC you are installing:

- ***IDE Configuration for HP Vectra VL 400*** on page 24-4.
- ***IDE Configuration for HP Vectra VL 420*** on page 25-4.
- ***IDE Configuration for Compaq Evo D510*** on page 27-4.
- ***IDE Configuration for HP Compaq D530*** on page 28-4.

- ***SATA Configuration for HP Compaq dc7100*** on page 33-4.
- ***SATA Configuration for HP Compaq dc7600*** on page 34-4.

SCSI Hard Disk (Kayak XA, XU)

This internal SCSI drive should be fitted into the lowest mass-storage device shelf available in the Kayak XA PC. In the Kayak XU PC the drive is fitted into the top shelf.

SCSI Address

When exchanging or installing a new SCSI disk, the SCSI disk must be jumpered as shown in the table below:

Drive	PC Type	
	XU	**XA**
C	SCSI ID 0	IDE Master
D	SCSI ID 1	SCSI ID 0

SCSI Termination

This is the last internal device on the SCSI bus, so make sure the drive is terminated correctly:

Table 12-1 Secondary Hard Disk Drive Termination for Kayak XA/XU PCs

Disk	Kayak XA	Kayak XU
Seagate ST39140W 9.1 GB (D6938A) D6455-69001	**Additional Options Jumper** connector is set to **Enable Terminator**[1]. The jumper is located on the rear side of the hard disk.	**Additional Options Jumper** connector is set to **Terminator power to SCSI bus**. Termination with existing internal ribbon cable terminator.
Quantum Atlas 9.1 GB (D6938B) D6463-69001 D6463-69003	No termination setting available on hard disk. Terminator must be fitted at the end of the internal ribbon cable. Internal SCSI cable pn M1383-61600. Cable terminator pn M1381-61602.	
Seagate ST39236LW 9.1 GB (D6938C) D9475-69001		

1. See HP D6938A *HP Ultra Wide SCSI Hard Disk Drive User's Guide* [Part Number D6938-90001].

Windows Installation

1. After restart run ***Disk Management***.
2. If the **Write Signature and Upgrade Wizard** appears, close it by pressing the **Esc** button.
3. Click **Disk 1** in the lower part of the Disk Manager window with the right mouse button and select **Write Signature**. Acknowledge.
4. Click graphical representation of the unallocated partition of Disk 1 with the right mouse button and select **Create Partition...**
5. The **Create Partition Wizard** appears, click **Next**.
6. Select **Primary Partition**, click **Next**
7. Keep the maximum as default value for the partition size, click **Next**
8. Assign **D:** as drive letter for the new HD, click **Next**
9. The **Format Partition** window appears. Enter the following settings:

   File System to use: **NTFS**
   Allocation unit size: **Default**
   Volume label: **TV Backup**
   Check the selection box **Perform Quick Format**

10. Click **Next** and **Finish** to start formatting the disk. Close the Computer Management console. It takes a few minutes until the disk is formatted and you can install OB **TraceVue**.

Optical Drives

Caution: **When installing or replacing optical drives check drive letter assignment after you have installed the drives. Refer to *Checking and Changing Drive Letters* on page 17-17.**

Optical drives are external devices. These devices are "daisy-chained" on the SCSI bus.

In case the SCSI host adapter has a wide connector the cable between the PC and the first optical drive must be a special cable with active termination.

The SCSI host adapter automatically detects when external SCSI devices are installed.

Caution: **The final optical drive must have a termination resistor installed.**

Ensure that the maximum length of the SCSI cables is not exceeded. See *Cable Lengths* below.

Drive Settings

On the back panel of the drive, make sure:

- SCSI address**:** archive drive: **1**; retrieve drive: **2**
- 5.2 or 9.1 GB drives: **Device Mode: 3 - Direct Access / Verify On**.

Put a terminator on the archive drive if there is no retrieve drive, otherwise put a terminator on the retrieve drive.

Cable Lengths

For all SCSI bus connections, make sure that the total cable length does not exceed 3 meters.

Note **Kayak XA PCs:** Internal and external SCSI devices share the same SCSI bus. Therefore the total **external** cable length must not exceed 2 meters.

Optical Medium Changers (Jukeboxes)

Optical medium changers and optical drives are external devices. These devices are "daisy-chained" on the SCSI bus.

An optical medium changer consists of 3 separate devices:

- the changer
- the first optical drive and
- the second optical drive

Each device maintains its own SCSI address.

OB **TraceVue** supports one optical medium changer plus an additional standalone optical drive.

Caution: **Do not turn power to STANDBY in the jukebox until you are sure the SCSI bus is inactive. Removing power from a SCSI peripheral when the bus is active can result in data loss and/or indeterminate bus states.**

Shutdown server PC and switch off before placing jukebox standby/on switch to STANDBY. To shut jukebox off completely, unplug power cord.

Plug the jukebox into power and place the standby/on switch to ON before powering on server PC.

Caution: **Ensure that you do not use write-protected media in a medium changer.**

Installation

- Remove the shipping screw and mailslot shipping bracket. Store the screw in a safe place for later use if the changer needs to be re-shipped.
- Check the SCSI address of the changer and the optical drives (see ***Changer Settings***).
- Connect SCSI cables and terminator.

Caution: **The final optical drive must have a terminator installed.**

Ensure that the maximum length of the SCSI cables is not exceeded. See *Cable Lengths* below.

No additional external SCSI device is allowed if the jukebox is connected to a Kayak XA.

Changer Settings SCSI IDs

- Autochanger: SCSI ID 4
- Optical disk drive 1: SCSI ID 5
- Optical disk drive 2: SCSI ID 6

Refer to the Optical Autochanger users guide on how to change the SCSI ID's.

All other settings are the **default settings**. For information on how to set default configurations refer to the ***HP Optical Jukebox Model 125ex/220mx Service Manual***.

Note It is not required to change the default drive letters assigned by the operating system.

Standalone Optical Drive Settings and Cables In case of installing an optical medium changer and an optical drive in combination, the cable between the medium changer and the drive must be a special cable with active termination. See also ***Cabling*** on page 4-5.

Table 12-2 Standalone Optical Drives Settings and Cables

Drive	SCSI ID	Device Mode	SCSI Cable
5.2 / 9.1 GB	1	**3 - Direct Access/Verify On**	M1383-61601 (plus M1381-61608 for ML370 servers)

Cable Lengths **For all SCSI bus connections, make sure that the total cable length does not exceed 3 meters.**

Note **Kayak XA PCs:** Internal and external SCSI devices share the same SCSI bus. Therefore the total external cable length must not exceed 2 meters.

Optical Disk Drive Cabinet

The Optical Disk Drive Cabinet is designed to protect the archiving disk and archive drive from gradual contamination by dust and other particulates.

The Optical Disk Drive Cabinet is used to house **one** optical disk drive when used as the optional archive drive for an OB **TraceVue** system.

Caution: **Do not place or store anything other than the optical drive and its current disk inside the cabinet.**

The empty space around the drive is required to maintain low operating temperatures.

Before Installing the Optical Disk Drive Cabinet

Plan where the Optical Disk Drive Cabinet will be installed.

- **Do not** extend the standard SCSI cables supplied with the optical drive. Clear sufficient space close to the OB **TraceVue** server for the cabinet.
- **Do no**t install the cabinet where it will be exposed to direct sunlight.
- The Optical Disk Drive Cabinet is **not** intended to house both the archive and the optional retrieve drive. The retrieve drive cabinet may be stacked on top of the archiving drive cabinet.

If the OB **TraceVue** archiving system is running:

1. Make sure that no optical disks are loaded in the drive(s).
2. Shut down OB **TraceVue** at the server. Client PCs will automatically shut down.
3. Shut down the server PC.
4. Switch off the archiving disk drive and, if fitted, the retrieve drive.
5. Disconnect all cabling, and put the drive(s) to one side out of the way.

Installing the Optical Disk Drive Cabinet

1. Place the drive cabinet as close to its final location as you can.
   The cabinet weighs about 11.5 kg (25.5 lbs) empty.
2. Feed all the cabling to the drive into the cabinet through the foam lined slot in its rear panel.
   This cabling could include:
   - The SCSI cable from the PC to the archive drive.
   - The SCSI cable to the retrieve drive, if present.
   - The power cable for the drive.
3. Connect the SCSI cabling to the drive, then connect the power cable.
4. If the optical disk drive's power switch is located on its rear panel, set the **power switch** to **on**. The switch is not accessible from the rear of the Optical Disk Drive cabinet.
5. Place the drive centrally on the floor of the cabinet, so allowing space for air circulation around the optical drive.
6. Place the cabinet in its final location.
   Make sure the cabling leaves the cabinet neatly, with no or minimal gaps in the foam seal.
7. Switch on power to the optical disk drive.
8. Restart OB **TraceVue**.

Maintenance

The drive cabinet requires no maintenance except occasional external cleaning.

Before cleaning the drive cabinet:

- Eject the disk from the drive.
- Make sure that you have read ***Caring for Optical Drives (standalone drives only)*** on page 8-3 and ***Caring for Optical Disks*** on page 8-3.

Caution: **Do not use under-diluted or strong solvents.**

The foam lined cable slot in the rear of the drive cabinet and the door seal cannot withstand abuse by such agents.

These components are not available as separate parts.

Clean the drive cabinet as described in the ***Instructions for Use***.

Repair

The drive cabinet has no exchangeable or repairable parts. If the cabinet is damaged, full unit replacement is required.

Backup Device (External Server Only)

Caution: **Installation of a third-party backup solution is subject to integration testing.**

High-End External Server (RAID)

At the high-end External Server PC, customers must implement a backup solution such as installing an external tape drive or backing up to a network share. However, it is not permitted to use any internal device for the highend external server.

Note If a **locally attached** backup device is used (e.g. tape drive) this **must be a SCSI** device.

See also ***System Administration and Configuration Guide***.

Standard External Server

Required Components

To install an internal tape drive into the PC, make sure you have the following components:

- Internal tape drive.
- Mounting screws.
- Kit containing mounting rails and screws.

Installation

1. Open the PC.
2. Put the jumper in the position **CS** (cable select).
   For HP Vectra VL400, VL420, Compaq Evo D510, and HP Compaq D530 PC only; the tape drive is connected to IDE bus 2, and you must put the jumper in the position **Cable select (CS)**.

   For HP Compaq dc7100/7600 PCs; both the CD-ROM and the tape drive are connected to the single IDE bus (identified as “primary IDE bus”). You must put the jumper in the position **Cable select (CS)**.
3. Install the tape drive.
   a. Remove the drive bay cover plate from the front of your computer.
   b. Insert the drive into the bay (for 1-inch bays remove and set aside the mounting bracket from the tape drive).
4. Connect the drive to the **Slave** connector:
   a. Find the CD-ROM device inside the computer.
   b. Locate the cable that connects the CD-ROM to the motherboard.
   c. Attach the open connector to the tape drive.
5. Connect the power cable:
   a. Locate your computers power supply and find an unused power cable.
   b. Plug the power cable into the back of the tape drive, with the beveled edge up

6. Reassemble the PC.
7. Restart the system. The tape drive is detected automatically by Windows.

UPS

Overview

The UPS acts as a power backup for a short-term power failure. The UPS supports communication between the PC and the UPS over a serial connection. Depending on the type of UPS a ***Smart Solution*** or ***Simple Solution*** is supported.

Table 12-3 UPS Hardware

PC Hardware	APC Smart-UPS 1000 (Smart Solution)	APC Back-UPS / Smart-UPS 620/1000 (Simple Solution)
Mandatory RS232 - UPS connection	Option K54	Option K53
M1395 High-end Internal Server	✓	-
M1383 Standard Internal Server	✓	-
M1383 Standalone Solution[1]	✓	✓
M1396 High-end External Server	✓	-
M1385 Standard External Server	-	✓
M1397 High-end Web/Terminal Server	✓	-
M1387 Standard Web Server	-	✓
Optional RS232 - UPS connection		
M1382 Client[2]	-	✓
M1382 Serial Port Server Host PC[2]	-	✓

1. If a customer requires all internal COM ports you must disable the UPS software according to ***Uninstalling / Disabling the UPS Software*** on page 12-19 and run the OB **TraceVue** setup to enable the COM port.
2. If a customer wants the UPS shutdown feature on client PCs, you must configure this according to ***Simple Solution Installation (APC Back-UPS / Smart-UPS 620/1000)*** on page 17-28.

Smart Solution

This functionality is based on the APC PowerChute software.

In case of a power outage for more than two minutes all users in the OB **TraceVue** network are informed of the fact that a PC is operating on battery power and will shutdown OB **TraceVue** after three minutes. If the power is restored within these 3 minutes OB **TraceVue** will not be shutdown. After additional three minutes the PC is shut down and switched off.

If the power outage occurs at the internal server PC the complete OB **TraceVue** system is shutdown. If the power outage only occurs at other PCs, OB **TraceVue** is terminated during shutdown of the operating system at these PCs.

Simple Solution

This functionality is based on the Windows 2000 built-in UPS service.

In case of a power outage for more than eight minutes the PC is shut down.

OB **TraceVue** gets terminated during shutdown of the operating system.

Connecting the UPS

Refer to ***Connect UPS*** on page 5-15.

UPS Driver Software

This software must be installed at OB **TraceVue** server PCs.

Installing the UPS Software

Refer to ***UPS Software***:

- ***Smart Solution Installation (APC Smart-UPS 1000)*** on page 17-28.
- ***Simple Solution Installation (APC Back-UPS / Smart-UPS 620/1000)*** on page 17-28.

Uninstalling / Disabling the UPS Software

You may need to disable the UPS driver software if you have a standalone PC with 4 fetal monitors connected, and no UPS connected. If you do not disable the driver software, error messages may be displayed at regular intervals.

Smart Solution

1. Open **Control Panel**, click **Add/Remove Programs**.
2. Select PowerChute plus 5.2 from the list.
3. Click **Add/Remove...**
4. Click **Yes** to confirm you want to remove the driver.
5. Click **No to all** for “remove shared file ....”
6. Reboot the PC.

Simple Solution

1. Open **Control Panel**, select **Power Options**.
2. Select the **UPS** tab, click the **Select...** button.
3. Select **(none)** from the **Select manufacturer:** combo box.
4. Commit the new settings.

Disk Identification (Kayak XU only)

If you cannot identify from the jumper settings whether this is drive C or drive D, follow the procedure below.

1. Ensure that boot from floppy is enabled.
2. Create a boot floppy using files from the OB **TraceVue** server CD-ROM:
   a. Place copydisk.exe (\disks directory) and the image file **DISK_ID.DSK** (\Tools directory) in the same directory
   b. Insert a formatted floppy and issue the DOS command **copydisk DISK_ID.DSK a:**
3. Shutdown OB **TraceVue**.
4. Open the internal server PC.
5. Disconnect the power cable of the upper SCSI drive.
6. Use the DiskID floppy to boot the PC.

   The disk ID check script checks the content of the only active disk and writes the logical disk drive to the screen.
7. Reconnect the powercable and close the internal server.

13
Renaming a PC

Changing a Server PC Name

1. Shutdown OB **TraceVue**.
2. In the Windows operating system, change the name of the PC.

   You can enter the complete PC serial number (FRXXXXXXXX) as the PC name.
3. Reboot the PC.
4. On the server PC, run OB **TraceVue** setup (see ***OB TraceVue Setup*** on page 16-2) and accept using the new PC name.
5. Run OB **TraceVue** setup on all client PCs
   a. Select **Only change database settings or system settings**.
   b. **Settings for this PC**: Uncheck all check boxes in order to not change any settings.
   c. Specify the new **Server PC Name**.
6. On all PCs with installed MS Office:

   Perform the followings steps for **OBTV Administrator**, **User** and **all** other[1] Windows users granted access to MS Office:
   a. Logon as Windows user (**OBTV Administrator**, **User**, ...).
   b. Start Word.
   c. Go to **Tools** → **Templates and Add-Ins...**.
   d. Remove **TvMacros.dot** from the list of **Global templates and add-ins** (if available).
   e. Click **OK**, close Word.

Changing a Client PC Name

Note If you have changed the server PC name you must complete **all** steps given above (including 5. ***Run OB TraceVue setup on all client PCs***) before you rename a client PC.

1. Shutdown the OB **TraceVue** client PC.
2. In the Windows operating system, change the name of the PC.

   You can enter the complete PC serial number (FRXXXXXXXX) as the PC name.
3. Reboot the PC.
4. Run OB **TraceVue** setup on the client PC and accept using the new PC name.

1. Including the terminal services logon user if you want to allow access to MS Office on WEB client PCs (see ***Terminal Services Configuration*** on page 17-16)

Replacement Client

Client PCs may be interchanged to substitute temporarily for a defective PC. If you rename a spare client PC, in order to use it as a substitute PC on the network, please see ***Substituting a PC*** on page 11-3.

14
Tools

Overview

Note Do **NOT** browse any OB **TraceVue** optical media in Windows Explorer!
Do **NOT** use the diagnostic tools when OB **TraceVue** is running, unless it is explicitly stated that you do so.

Standard Windows Tools

Note Most Windows tools require ***Windows administrator*** rights.

Table 14-1 Standard Windows Tools

Tool	How to Start	When to Use
Computer Management	Right-click **My Computer** (icon on the desktop) → **Manage**	
Control Panel	**Start** → **Settings** → **Control Panel**	
Administrative Tools	***Control Panel*** → **Administrative Tools**	
Licensing	***Control Panel*** → **Licensing**	To change licensing options.
System Properties	***Control Panel*** → **System**	To change environment settings.
Virtual Memory	***System Properties*** → **Advanced** → **Performance Options** → **Change**	
Add Printer	**Start** → **Settings** → **Printers,** double - click **Add Printer**	To add, remove, or modify printers.
Event Viewer	***Computer Management*** → **System Tools** → **Event Viewer**	Use to troubleshoot a problem for example, if you have device problems.
Device Manager	***Computer Management*** → **System Tools** → **Device Manager**	To view information about the current status of Windows hardware devices and drivers.
Disk Management	***Computer Management*** → **Storage** → **Disk Management**	Use this when you have trouble accessing the hard disk or to check if the hard disk volume has errors.
Removable Storage Manager	***Computer Management*** → **Storage** → **Removable Storage**	Use this when you have trouble ejecting optical disks from an optical medium changer.
Services	***Computer Management*** → **Services and Applications** → **Services**	
Performance Monitor	***Administrative Tools*** → **Performance**	To view application status, process resources and system performance

Table 14-1 Standard Windows Tools

Tool	How to Start	When to Use
Disk Defragmenter	***Computer Management*** → **Storage** → **Disk Defragmenter** Refer to ***Disk Defragmenter*** on page 14-6.	To increase hard disk performance.
Backup	**Start** → **Programs** → **Accessories** → **System Tools**	To create an emergency repair disk.
Command Prompt	**Start** → **Programs** → **Accessories** → **Command Prompt**	

Database Tools

Note To start **Sybase Central** you must log on as ***Windows administrator***.

Table 14-2 Database Tools

Tool	How to Start	When to Use
Sybase Central	OB **TraceVue** C.01.01 or earlier: **C:\TV2\SQLANY\WIN32\SCVIEW.EXE** OB **TraceVue** D.00.00 or later: **C:\TV2\SQLANY\Sybase Central 4.1\SCJVIEW.EXE**	Database administration console.

OB TraceVue Tools

Note Some tools require ***Windows administrator*** rights. In addition some of the tools require an OB **TraceVue** user account with special access rights. See ***Tools*** on page 3-5 for details.

Table 14-3 OB TraceVue Tools

Tool	How to Start / Refer to	When to Use
Administration Tool (Patient Data Administration Tool)	**Start → Programs → OB TraceVue Support → Administration Tool** ***Administration Tool*** on page 14-7.	OB **TraceVue internal** database tool. ▪ To correct wrong patient entries or modifications. ▪ After a training session, to delete "practice patients". ▪ To delete data for patients which you do not expect to have any more episodes at the hospital. For example: patient has moved away, patient has died. ▪ To gain "responsibility" for a patient, when the responsibility (token) has been assigned to another server, and the server is down or you are not able to get the responsibility back via the usual methods.
Configuration Backup Tool	**Start → Programs → OB TraceVue Support → Configuration Backup** ***Configuration Backup (Internal Server Only)*** on page 15-20	▪ *Backup*: After finishing a user configuration, so that you can recover in case the configuration gets lost. ▪ *Reload*: Directly after OB **TraceVue** software is reinstalled.
Database Rebuild Tool	**Start → Programs → OB TraceVue Support → Database Rebuild Tool** ***Database Rebuild Tool*** on page 14-8	▪ To optimize the database data organization.
External Database Administration Tool	**Start → Programs → OB TraceVue Support → Export Database Administration Tool** See ***Integration Guide*** and ***System Administration and Configuration Guide***	To purge patient data from the **external** database in order to reduce its size.
Fetal Monitor **Spy** (FMSpy)	**Start → Programs → OB TraceVue Support → Spy** ***Fetal Monitor Spy (FMSpy)*** on page 14-14	When you first set up a system to check that you have the correct cabling and connections to all fetal monitors.

Table 14-3 OB TraceVue Tools

Tool	How to Start / Refer to	When to Use
GetLog	***GetLog*** on page 14-20	When the response center has requested all the system information available on an OB **TraceVue** system.
Logfile Viewer for OB **TraceVue** Error Logs	**Start → Programs → OB TraceVue Support → Logfile Viewer** ***LogFile Viewer for OB TraceVue Error Logs*** on page 14-12	■ When the system or PC hangs. ■ After re-start for problem diagnosis. ■ If you have problems starting the PC. ■ Whenever the system messages indicate any error situation. ■ If the archive is not working properly.
Offline Backup Tool	**Start → Programs → OB TraceVue Support → Offline Backup Tool** ***Offline Backup Tool*** on page 14-10	■ Regular backup. ■ Backup before repair. ■ Backup before upgrade. ■ Backup if exchanging hardware. ■ Backup **TV2_Templates** directory. ■ Restore.
System Overview Tool	**Start → Programs → OB TraceVue Support → System Overview Tool** ***System Overview Tool*** on page 9-2	■ The check the status of OB **TraceVue** PCs. ■ To reboot selected PCs or the complete OB **TraceVue** system. ■ To start OB **TraceVue** on selected PCs or to start the complete OB **TraceVue** system.

Other Tools

Table 14-4 Other Tools

Tool	How to Start / Refer to	When to Use
DiagTools	***DiagTools*** on page 14-19	■ To ensure the correct functioning of your system's hardware as a complete unit. ■ To test individual components of your PC or PC Workstation. ■ To know the complete hardware configuration of your PC or PC Workstation. ■ A complete record of your system's configuration and test results.

Windows Tools

Disk Defragmenter

Defragmentation increases hard disk performance and therefore reduces overall OB **TraceVue** response times.

Defragmentation can be performed after upgrade, re-installation or on a regular basis for system maintenance.

Note Only defragment hard disks of OB **TraceVue** Internal Server and External Server PCs.

Process

1. Stop OB **TraceVue**.
2. Log in as a Windows user having administrator rights.
3. Stop the OB **TraceVue** database server service using ***Sybase Central***.
4. Start the ***Disk Defragmenter***.
5. Select the disk to be defragmented.

Caution: **Never defragment an optical disk.**

6. Click the **Defragment** button.
7. Defragmentation may take from minutes to hours depending on the amount of data, free space and fragmentation rate of the hard disk.
8. After successful defragmentation reboot the PC.
9. Start OB **TraceVue**.

OB TraceVue Tools

This section details the diagnostic tools developed specially for use with OB **TraceVue**.

Database Administration Tools.

For details on how to use the tools refer to the ***System Administration and Configuration Guide***.

Administration Tool

Prerequisites For the patient record you want to manage:

- **make sure you have deleted all retrieved episodes**
- **if episodes have been closed or deleted prior to starting the tool, make sure**
  - that the archiving process has finished (archiving systems only)
  - OB **TraceVue** has cleaned up the patient record (may take up to 10 minutes)

If you want to cleanup patient data:

- Shutdown OB **TraceVue**

Functionality **Cleanup:** The Patient Data Administration Tool is able to remove patient data from the internal database. This means that the data is no longer available via OB **TraceVue**, except via Retrieve from Optical, (refer to ***Retrieve from Optical Disk (RFO Wizard)*** on page 15-28). The following data items can be removed:

- One or more patient pregnancy cases, including all the episode and child cases belonging to that pregnancy.
- One or more patient cases, including all the pregnancy, episode and child cases belonging to that patient(s).

Enable/Disable patient records: The Patient Data Administration Tool allows you to enable or disable patient records if the identifying ID (patient ID, social security number, medical record number) conflicts with another patient record. See also ***Link Recovery Tool*** on page 15-17.

Lock/Unlock patient records: The Patient Data Administration Tool allows you to lock or unlock patient records. See also ***Link Recovery Tool*** on page 15-17.

Caution: **Lock or unlock patient records only in an emergency, as using this functionality can lead to data inconsistency (for example, data being entered at more than one PC).**

Database Rebuild Tool

The database rebuild tool is used to optimize the data organization of the internal and external database and therefore increase database performance. It can also repair database discrepancies that are detected by the ***Local Data Recovery Tool***'s database validation.

Prerequisites Before starting the tool:

- Backup the internal database (if running the tool on the internal server).
- Backup the external database (if running the tool on the external server).
- Shutdown OB **TraceVue**.

Note The amount of free space available on the hard disk must be at least the size of the internal / external database.

Functionality The Database Rebuild Tool re-organizes the internal or external database by

- Creating a new empty database (**tvtemp.db**)
- Unloading the data from existing database
- Reloading the data into the new database
- Replacing the old database by the new database

Using the tool

- To rebuild the internal database, start the Database Rebuild Tool at the internal server PC.
- To rebuild the external database, start the Database Rebuild Tool at the external server PC.

Note A database rebuild can take up to hours depending on the amount of data to copy.

Final Steps After the rebuild has finished:

- Start OB **TraceVue**.
- If no errors occur delete the old database files (**tvold.db, tvold.log**). The location of the files is given in the log (**dbrebuild.log).**

Troubleshooting If you cannot run the database rebuild tool successfully on the **standard external database server PC due to a limitation of free hard disk space**, follow this procedure to back up the database file directly to tape and upgrade the hard disk.

- Perform a tape backup as described in the ***System Administration and Configuration Guide*** (emergency tape backup procedure "*Storing Backup Files to Tape Device*").

- Print out a copy of the installation record of the external database server.
- Upgrade the external database server to a larger hard disk.
- Install the external database server as a completely new installation. See ***Recovery Process: External Database Server*** on page 15-11.
- Restore the external database files as described in the ***System Administration and Configuration Guide*** (emergency tape backup procedure "*Restoring Backup Files from the Tape Device*").
- Run the Database Rebuild Tool on the external database server PC. See ***Using the tool*** and ***Final Steps***.

Offline Backup Tool

The tool backs up a complete OB **TraceVue** installation (including database, patient data files and configuration data), or the contents of the **`TV2_Templates`** directory. It does not backup the operating system, Microsoft Office or any other 3rd party software.

You can use the tool for:

- Regular backup.
- Backup in case of defect before any repair actions take place.
- Backup before upgrading to newer software or if exchanging hardware.
- Backup before 3rd party software integration.
- Backup before modifying MS Office templates.
- Restore of a previously backed up OB **TraceVue** installation.
- Restore of a previously backed up **`TV2_Templates`** directory.

Caution: Do **not** store a backup on an optical disk that is used by OB **TraceVue** for archiving.

Prerequisites

- Shutdown OB **TraceVue**.
- Log on Windows as ***Windows administrator***.
- The OB **TraceVue** software version must be A.02.10 or higher.
- **Restore**: The OB **TraceVue** installation you want to restore must have the same software revision as the currently installed OB **TraceVue** installation. **Only** if **no episodes** were archived with the newer revision, it is possible to restore an older software version.

How to Start The tool can be started at any PC:

- OB **TraceVue** D.00.00 or higher:
  Start → Programs → OB TraceVue Support → Offline Backup Tool
- If the tool is not installed on your system, insert the latest OB **TraceVue** server CD-ROM and select **`\\TraceVue\tools\tvbackup.exe`**.

Backup

- The backup is stored in a single ZIP file.
  Store the file securely (for example, on a network drive, on an optical disk[1], or on a backup tape).
- Information about the backup is logged to a window. The contents of the window can be stored in a file.

---

1. Do **not** store on an optical disk that is used by OB **TraceVue** for archiving.

Restore an OB TraceVue Installation

Caution: **Do not restore a backup of an older OB TraceVue software revision if any episodes were archived after the backup with a newer OB TraceVue software.**

- If you want to restore on a PC that contains an OB **TraceVue** installation you must uninstall that installation first. Run the ***OB TraceVue Setup*** to ***Uninstall OB TraceVue.***
- Start restore, using the ***Offline Backup Tool*** on page 14-10.
- **OB TraceVue archiving systems prior to C.00.00 only**:
  Create the directory `D:\tv2\db` (if it does not exist, yet).
- Start ***OB TraceVue Setup***, select ***Install the OB TraceVue Software***, **Keep existing database and data files**. Do not change any settings.
- Apply existing OB **TraceVue** Service Packs if available.
- Execute the ***Local Data Recovery Tool*** (internal server PC only).
  Do **not** skip the Optical Disk Recovery.

Restore a TV2_Templates Directory

You can only restore a templates directory if `c:\TV2_Templates` does not exist yet.

LogFile Viewer for OB TraceVue Error Logs

The LogFile Viewer is an on-line support tool. Each OB **TraceVue** PC automatically produces a unique log file containing diagnostic error messages. The LogFile Viewer allows you to review these log files. You can view log files for all PCs from the server. You do not have to go to a local client PC.

When to Use LogFile Viewer

See Table 14-3, ***OB TraceVue Tools***, on page 14-3.

Starting LogFile Viewer

Go to **Start** → **Programs** → **TraceVue Support** → **Logfile Viewer**

Understanding the LogFile Viewer Display

The screen is divided into the following areas:

Module	Shows the module to which the message refers, for example, tool bar.
Date	Shows the date on which the message was written to the Log.
Time	Shows the time at which the message was written to the Log.
Info	Describes the event status (both errors and successes).
Text	Event description.
Command Buttons	Shows the commands that you can issue by pressing the appropriate button. These are detailed below.

Commands

Select a command by clicking it using the left mouse button. Some commands display a dialog box, which you must complete.

Logfile	Click this to display a log file. The log file shown is the log that was active last time this tool was used. Use the log file command to specify a different log file.
Browse	Click **Browse** to make a different log file active. The system displays a dialog box from which you select the name of the Error Log file you require.
Detail	Click this to display an individual message in more detail. To return to the message list, click **OK.** Click **Previous** to view the previous message.

Filter	Click **Filter** to search for a message created at a specific time and date. The system displays the **Filter Selection** dialog box in which you must specify the search criteria. Click **Start** to search for matching messages. The system displays a message screen, created as close to the search parameters as possible. It highlights the message that most closely fits the search parameters. To reset the message screen to display all messages, click **Filter**, then click **Clear Filter** to clear the filter parameters, then click **Start**. Click **Cancel** if you do not wish to continue with the search.
Exit	Click **Exit** to close the **LogFile Viewer** window.

Log File Path The log files for all PCs are stored at the server PC: **C:\TV2\LOGDATA**

Available Log Files You can view log files for each PC. Client log files are named according to the client names. All log files are stored on the server.

Installation Record

Go to **Start** → **Programs** → **TraceVue Support** → **Installation Record**

The installation log file is opened in **Notepad** as a **.TXT** file.

Fetal Monitor Spy (FMSpy)

FMSpy is a software diagnostic tool that allows you to check:

- The physical connection between a fetal monitor and the PC to which it is connected.
- Data transfer between a fetal monitor and the PC to which it is connected.

You cannot use FMSpy to test data transfer over the OB **TraceVue** network.

When to Use FMSpy

See Table 14-1, ***Standard Windows Tools***, on page 14-1.

Starting FMSpy

At the PC where you wish to run FMSpy:

1. Exit OB **TraceVue**.

   If this is an OB **TraceVue** client, there is no need to exit OB **TraceVue** at the server or at any other client.

   When you exit OB **TraceVue** at the server, all OB **TraceVue** clients will shut down automatically. FMSpy running at the server cannot test data transfer from a fetal monitor connected to a client.

2. Go to **Start** → **Programs** → **TraceVue Support** → **Spy**

Quitting FMSpy

When you have finished using FMSpy, click the **END SPY** button. You can also exit by pressing **ALT** and then **E** on the keyboard.

Selecting the Port

Select the **Port** field. The system displays a list showing the available digital channels.

Select the port **Digital COM 1** through **Digital COM 20** directly using the **Port** dropdown box. If you need to select a higher COM port then type **#<*number*>#**, for example **#45#** for COM 45.

Initializing the Port

When you select a port, FMSpy initializes that port and the monitor connected to that port. If the data that FMSpy displays does not appear to be current it is probably showing old data contained in a buffer. Reselect the port.

The field next to the **Port** field is color coded to show you at a glance the current status of the port.

Black	Port does not physically exist. Perhaps there is no card for this port in the PC, or it has been disabled during PC setup.
Red	Port is in use, but not by this FMSpy.
Yellow	FMSpy is trying to detect a fetal monitor at this port.
Green	FMSpy has successfully established a connection to the fetal monitor.

Interpreting Data

FMSpy can obtain more data from a digital connection than it can from an analog connection. The following describes all the information it is possible to obtain digitally.

Monitor Info Fields

After detecting a monitor, FMSpy displays information about the monitor itself in the **Monitor Info** fields:

Field	Monitor Data
Monitor ID	Monitor type
Serial Number	Monitor's serial number
Software Rev	Revision number of the monitor software, if available

Received Data Fields

Heart Rate

FMSpy reports the same type of information for HR1 (heart rate1), HR2 (heart rate 2, used for twins monitoring) and MHR (maternal heart rate). This information is displayed in the **Received Data** section beneath the headings HR1, HR2, and MHR.

1. Number of beats per minute.

NO_TRAN	no transducer present
ext	external monitoring
IUP	internal monitoring
unknown	method of monitoring is unknown

2. Signal quality. This can be:

Red	Signal not valid
Yellow	Signal quality good
Green	Signal quality very good

3. Mode. This is the mode in which the transducer is being used. The possible values are:

NO_TRAN	no transducer present
US	ultrasound
DECG	direct ECG
MEGC	maternal ECG
ext MECG	external maternal ECG
AECG	abdominal ECG
Unknown	transducer mode unknown

Toco

This indicates the way in which Toco is being monitored. The possible values for Toco are:

NO_TRAN	no transducer present
ext	external monitoring
IUP	internal monitoring
unknown	method of monitoring is unknown

SpO2

The data is valid only when the monitor is equipped to measure the oxygen saturation of the blood and the check box below this field is green. A gray checkbox indicates that current data is not available (any data is from an old measurement).

Fetal Mov

If this Check Box is green, it indicates that fetal movement is detected.

Message Box FMSpy displays all the messages received from the monitor, together with the time and date so that you can verify the monitor's operation FMSpy appends messages to a file named **acqcom<*comport-number*>.LOG** in the current directory only if the **Save active** button is checked.

Recorder Status Displays status information from the recorder.

AppTrace Level The AppTrace Level allows FMSpy to write messages to the **acqcom<*comport-number*>.LOG** file.

Monitor Status The status boxes display the monitor's known condition. If the box contains a cross, the value is true. For example, if the HR 1 Twin offset box contains a cross this indicates that the Twin Offset is enabled.

Request and Send Buttons

Some monitors can receive messages sent by FMSpy and send back answers. A request message tries to obtain a specified message from the monitor. A send message tries to send a message to the monitor. The messages received from the monitor are displayed in the Message Box.

Request Buttons

Use these buttons to make the monitor display information in the Message Box. You can use this information to diagnose problems.

Request	Meaning
Timer Stat	Not Used.
Record Stat	Not Used.
Serial Stat	Displays statistical data of bytes both transferred to, and received from, the monitor.
Date-Time	Displays the monitor's internal date and time.
Monitor ID	Refreshes the Monitor ID field, where possible. Not all monitors can send this information to FMSpy.

Test Note Send Button

Use **Send Note** to print a user defined test message on the monitor's own paper.

Tools Available from the Softserver

The following tools can be downloaded from the Softserver on the worldwide web (www):

- GetLog
- HDCheck (See ***Integration Guide***).

Downloading from Softserver

1. Open **Internet Explorer**.
2. Go to the Softserver website
   - ***http://pww.andspss1.anr.ms.philips.com/softserver/softserver/navigation.asp***

   Note: the site is only accessible from the internal company network.
3. Click **Softserver** (on the left side of the screen).
4. Click **Tracevue** (in the Softserver directory) to expand it.
5. Click **Support Tools** in the Tracevue directory.
6. Click the appropriate revision**.**
7. Select the tool you wish to download from the list. To do this click the tool's file name.
8. Login into Softserver-User-Registration using your employee number if you are accessing the Softserver for the first time today.
9. Select to **Save this program to disk**.
   Click **OK**.
10. Select a directory to save the tool to. It is recommended you use **C:\TEMP**.
    Click **Save**. The tool software is downloaded.
11. Click **Close** to close the **Download Complete** dialog box.
12. Click [**X**] to close Internet Explorer.
13. To run the tool follow the instructions given in the next sections for each of the tools. Note that compressed files are automatically decompressed when you double click them, you do not have to decompress them yourself.

DiagTools

DiagTools is a hardware diagnostics test suite for HP Vectra and HP Kayak PCs. It helps you:

- Check the configuration of your system and verify that it is functioning correctly
- Identify hardware problems
- Provide precise information to HP-dedicated Support Agents, so that they can solve any problems quickly and effectively.

Which PCs? You can use the DiagTools on the following PCs:

- HP Kayak XA
- HP Kayak XU
- HP Vectra VL400
- HP Vectra VL420

Where to Find More Information Go to the HP home page ***http://www.hp.com***, search for **diagtools**.

When to Use DiagTools See Table 14-3, ***OB TraceVue Tools***, on page 14-3.

Starting DiagTools

1. Download the software from the Softserver, see ***Tools Available from the Softserver*** on page 14-18.
2. Start the application **dtstart.exe**, and follow the instructions on the main menu:
   - Read the DiagTools User Guide.
   - Create the floppy disks for the appropriate PC type (for example, HP Kayak XA)

Using DiagTools

Note You must first create a bootable floppy disk according to the instructions in the main menu.

---

1. Reboot the PC with DiagTool boot floppy in drive a:
2. Perform the DiagTool Basic System Test.
3. Create a Ticket, then store it on the boot floppy disk.
4. Send the contents of, and/or the floppy disk, via email or regular mail to your local response center.

GetLog

GetLog compresses all available OB **TraceVue** log files plus some additional system information including event log data. The compressed data is stored in a single archive file.

It can be run on

- the internal server (most log files)
- Clients (install.txt and local log files)

When to use GetLog

See Table 14-3, ***OB TraceVue Tools***, on page 14-3.

Installing GetLog

1. Download the software from the Softserver. See ***Tools Available from the Softserver*** on page 14-18.
2. Install GetLog by running **GetLog_D_install.exe**. Follow the instructions on screen.

Creating and Copying an Archive Log File

- Run: **c:\tv_tools\GetLog_D.bat**.
  GetLog compresses the log files into a single archive file named **c:\temp\transfer\<*hostname*>_log.zip**.
  After that it stores the archive file on one or more floppy disk(s).
- GetLog allows to skip the copy process. The archive file can then be distributed using a different medium (e.g. e-mail).
- To store an already created **<*hostname*>_log.zip** on floppy disk(s):
  In a Command Prompt window type: **c:\tv_tools\getlog_d COPY**.

Note If the **.zip** file will fit on a single floppy or (if it is larger) it can be copied to a support PC, please forward the single **.zip** file to your local Response Center.
If the **.zip** file must be split to multiple floppies, please reassemble file prior to forwarding (see ***Restoring an Archive Log File***).

Restoring an Archive Log File

To restore an archive log file on the local PC:

1. Insert the **first** backup disk (contains **<*hostname*>_log.z01**) into the floppy drive.
2. In a Command Prompt window type: **a:\transfer.bat <*destination path*>**.

Decompressing an Archive Log File

Any standard ZIP utility can be used to extract files from **<*hostname*>_log.zip**.

To extract using unzip.exe (installed in **c:\tv_tools**):

- In a Command Prompt window, change to **c:\tv_tools**
- Type: **unzip –d <*destination path*> <*zip file path*>**
- Example: **unzip –d c:\logfiles c:\temp\transfer\LdServer_log.zip**

15
OB TraceVue Repair

What to do if

This table tells you which procedures you may need to refer to if the OB **TraceVue** system fails.

Table 15-1 What to do if ...

Situation	Refer to
hardware failed or Windows does not start at ...	
■ Server PC with RAID	***Recovery Process: Internal Server with RAID Disk Array*** on page 15-4
■ Server or Standalone PC with archiving	***Recovery Process: Internal Server with Archiving (no RAID)*** on page 15-7
■ Server or Standalone PC without archiving	***Recovery Process: Internal Server without Archiving*** on page 15-10
■ External Database Server PC	***Recovery Process: External Database Server*** on page 15-11
■ WEB/Terminal Server PC	***Recovery Process: WEB/Terminal Server*** on page 15-11
■ Client PC	***Recovery Process: Client*** on page 15-12
OB TraceVue ...	
■ has had an uncontrolled shutdown	***Local Data Recovery Tool*** on page 15-13
■ reports errors about incorrect patient data	
■ cannot be started	
the OB TraceVue database ...	
■ is corrupt or not accessible	***Local Data Recovery Tool*** on page 15-13
systems with OB TraceVue Link ...	
■ have been reinstalled	***Link Recovery Tool*** on page 15-17
■ have been merged using the RFO merge feature	
■ report errors when patient records are to be transferred between systems	

Table 15-1 What to do if ...

Situation	Refer to
information about archived patients is no longer available	
■ after new system installation (no database backup available)	***Retrieve from Optical Disk (RFO Wizard)*** on page 15-28
■ after patient data was deleted using the Administration Tool	
optical disks ...	
■ are contaminated with dust	***Optical Disk Test Tool*** on page 15-22
■ report write errors while patient data is archived	
■ report read errors while patient data is retrieved	
the configuration of OB TraceVue ...	
■ must be reloaded (for example, after software reinstallation)	***Configuration Backup (Internal Server Only)*** on page 15-20
■ must be backed-up (for example, after changing the configuration or after new system setup)	

Which Tool?

Table 15-2 When to Use Which Tool

Tool	Page	When to Use
Recovery Process After a Hardware Failure or System Software Failure	*15-4*	■ When a hard disk has crashed. ■ When Windows does not start.
Local Data Recovery Tool	*15-13*	■ If the database is corrupt, not accessible or errors about incorrect patient data occur. ■ If you replace the hard drive C or D, reinstall OB **TraceVue** system software, and want to recover the original database. ■ If the system has had an uncontrolled shutdown. ■ If you have problems trying to start OB **TraceVue**. ■ After running **CHKDSK**. ■ As part of regular system maintenance.
Link Recovery Tool	*15-17*	■ To clean up inconsistencies (read/write permissions) of patient records among systems connected with OB **TraceVue** Link: ■ After complete reinstallation of a system with OB **TraceVue** Link. ■ After linked systems have been merged using the RFO merge feature.
Configuration Backup (Internal Server Only)	*15-20*	■ *Backup*: After finishing a user configuration, so that you can recover in case the configuration gets lost. ■ *Reload*: Directly after OB **TraceVue** software is reinstalled.
Optical Disk Test Tool	*15-22*	■ To verify, copy and repair optical disk media. ■ To generate file list and patient lists.
Retrieve from Optical Disk (RFO Wizard)	*15-28*	■ When information about the archived patient is no longer available in OB **TraceVue**. This could be after a new system installation or hardware defect **if no backup of the database is available**. ■ When patient data was deleted using the OB **TraceVue** Administration Tool ■ To merge data of different systems into one single database.
HP NetRaid Assistant (LC 2000) *HP / Compaq Array Configuration Utility*	*15-35* *15-36*	■ To review the state and configuration of RAID disks. ■ When a failed RAID disk has to be replaced.

Recovery Process After a Hardware Failure or System Software Failure

This section describes the process used to recover an OB **TraceVue** system after a hardware failure or corruption of the Windows operating system.

Note Using the **CHKDSK** utility to repair files after a system server crash could result in archiving of corrupt files. Always run the ***Local Data Recovery Tool*** after running **CHKDSK**.

Recovery Process: Internal Server with RAID Disk Array

The OB **TraceVue** server with RAID disk array has 5 hard disks. 4 of the hard disks represent one logical drive C, one is used as spare disk.

Single Hard Disk Failure In case of a single hard disk failure, just replace the failed disk (indicated by a flashing red light). It is not necessary to shutdown OB **TraceVue** or to reboot the server PC.

Caution: **HP LC2000 PC:**

Use the HP NetRAID Assistant tool to set the correct configuration for the replacement disk. Refer to *Configuring a replacement disk* on page 15-35.

Compaq ProLiant ML370 G2 / HP ProLiant ML370 G3 / HP ProLiant ML350 G4 / HP Proliant ML350 G4P:

The configuration for the replacement disk is applied automatically.

Caution: **There is no default system alert if disks fail. You need to check on a regular basis as preventive maintenance or use HP TopTools or HP / Compaq Insight for alert distribution.**

Refer to

- ***HP TopTools Management Software* on page 9-8**
- ***HP / Compaq Insight Management Software* on page 9-9**

Multiple Hard Disk Failure In the improbable case that 2 or more hard disks failed at the **same** time and therefore the server PC does not start any more, replace the defective hardware and refer to the procedure ***Recovery Process: Internal Server with Archiving (no RAID)***, ***Complete Server Reinstallation (both hard disks failed)***.

Windows does not Start

To repair a corrupted Windows installation, use the *Windows Repair Setup* process.

Caution: **In case of a corrupted Windows installation, you must NOT perform a recovery or a new installation on drive C, because this will erase all your data. Servers with RAID array do not have a backup disk D!**

For the repair process you need:

- Four empty floppy disks to create the Windows Setup Boot Disks
- The OB **TraceVue** Server Installation CDROM

To do the repair, follow these steps:

1. Create and label the necessary disks from the OB **TraceVue** Server Installation CDROM. The files are located in the folder **H:\W2SOEM\BOOTDISK**.
   - Open a command prompt on any PC, change to **H:\W2SOEM\BOOTDISK**
   - Run **copydisk <*filename*> a:**

Table 15-3 Server Boot Disks

filename:	disk label
CDBOOT1.IMG	Windows 2000 Server Setup Boot Disk 1
CDBOOT2.IMG	Windows 2000 Server Setup Boot Disk 2
CDBOOT3.IMG	Windows 2000 Server Setup Boot Disk 3
CDBOOT4.IMG	Windows 2000 Server Setup Boot Disk 4

2. Insert the **Setup Boot Disk 1** and turn on the PC (floppy disk drive must be enabled in system BIOS)
3. If being asked, insert the OB **TraceVue** Server Installation CD into the server PC.
4. Follow the on-screen instructions for the Windows **emergency repair process** (use the **Emergency Repair Disk**). Refer to the Windows Help for further information.

   If you do not have an **Emergency Repair Disk** use the disk image from **H:\W2SOEM\BOOTDISK** to create an **ERD**. For details see **Readme.txt**.
5. After a successful repair, run the ***Local Data Recovery Tool*** (see ***page 15-13***).

Other Hardware Failure (no spare server available)

If you do not have a spare server, replace the failed components and restart the PC.

Other Hardware Failure (spare server available)

If you have an identically configured spare server, you can use the spare hardware to restart the system within several minutes:

1. Turn off the failed server and disconnect peripheral devices (optical drives)
2. Connect the peripheral devices, network and power cables to the spare server.
3. Remove the hot swap disk drives from the failed server and install them carefully in the slots of the spare server.

Caution: **Keep the drives in the same order! Do not mix the drives! Do not add any other disks.**

---

4. Turn on the spare server and the external devices such as optical drives and UPS.
5. Only HP NetServer LC2000:

   After you see the message **Firmware Initializing**, you may see the following message:

   Configuration of NVRAM and drives mismatch
   Run View/Add Configuration option of Config Utility
   Press any key to run the Config Utility…

   The message tells you that the configuration information stored in the drives (the correct configuration) does not match the configuration information stored in NVRAM on the installed NetRAID adapter. To update the NVRAM or NetRaid configuration:

   a. Press any key and the HP NetRAID Express Tools utility starts automatically. You see the Tools Management menu.

   b. Choose **Configure → View/Add/Delete Configuration**

   c. Choose **View Disk Configuration**, as opposed to NVRAM, from the View/Add/ Delete menu.

   d. After scanning has finished, press **ESC**.

   e. You will be asked to save the configuration – answer with **YES**.

   f. Press **ESC** repeatedly to exit HP NetRAID Express Tools.

   g. Press **CTRL+ALT+DELETE** to restart the system. The adapter should recognize all the drives and the previous logical configuration.

6. When Windows has started, run the ***Local Data Recovery Tool***.
7. Check the system time of the PC.
8. Start OB **TraceVue** on the new server and on the client PCs.

Recovery Process: Internal Server with Archiving (no RAID)

The OB **TraceVue** Server with archiving has two hard disks:

- The C: drive represents the server's first hard disk.
- The D: drive represents the server's backup hard disk.

Primary Hard Disk Failure

It is possible to recover the system from the backup disk.

1. **Replace defective hardware**

   a. Identify the hard disks. Either compare the installed disk configuration with the configuration table in ***SCSI Hard Disk (Kayak XA, XU)*** on page 12-9 or if the PC has two un-jumpered SCSI disks, (i.e. both have SCSI ID 0) see ***Disk Identification (Kayak XU only)*** on page 12-20.
   For IDE and SATA disks refer to ***IDE Hard Disk (VL400, VL 420 Evo D510, D530)/SATA Hard Disk (dc7100/dc7600)*** on page 12-8.

   b. Install the new primary hard disk.

2. **Install Windows**

Caution: **Do not use the Windows installation described in Chapter 17, *Windows 2000 Installation* because this will erase ALL backups.**

---

   a. Locate the file or printout of installation record, which should have been saved after the initial installation of the server (see ***Reviewing and Printing the Configuration Record*** on page 5-29). The file specifies the PC name which is needed when you reinstall the operating system.

   b. Boot the server from the OB **TraceVue** boot disk. Select **Start FDISK Utility**.

   c. Delete any existing partition from the new **C:** drive and create a new Primary DOS Partition (FAT) partition with maximum size.

   d. Reboot the server PC from the OB **TraceVue** boot disk or bootable CD.

   e. Insert the OB **TraceVue** server CD-ROM.

   f. Select **OB TraceVue server/standalone (M1383x) RECOVERY INSTALLATION** and follow the on screen instructions.

3. **Install OB TraceVue**

   a. Start **Windows Explorer**

   b. Rename the directory **D:\TV2** to **D:\TV2OLD.** (This is now your recovery source!) If it is not possible to rename the directory, reboot the PC.

   c. Copy **D:\TV2OLD** to **C:\TV2OLD**. **(This is now your backup!)**

   d. Install OB **TraceVue**. Configure the system with the options and settings specified in the installation record file or printout (see ***Reviewing and Printing the Configuration Record*** on page 5-29).

   e. Reboot the PC, but do **not** start OB **TraceVue**.

   f. Stop the OB **TraceVue** database server process:

      i. Start ***Sybase Central***.

      ii. Select **Services**, then select **OBTV_DB_SERVER.**

      iii. Open the **File** menu and click **Stop.**

   g. Delete the directory **D:\TV2.**
   If it is not possible to delete the directory, reboot the PC and try again.

   h. Rename the directory **D:\TV2OLD** to **D:\TV2.**

   i. Delete the file **C:\TV2\DB\TRACEVUE.DB** (This is an empty database).

   j. Run the ***Local Data Recovery Tool*** (see ***page 15-13***).

   k. Start OB **TraceVue**. The system should now be working correctly, with all data visible.

   l. Delete **C:\TV2OLD.**

Secondary Hard Disk Failure

1. Start PC in Safe Mode.
2. Verify that the page file size for drive C: is at least 80 MB.
   (***Control Panel*** → **System** → **Advanced** → **Performance Options**).
3. Install, partition and format the new secondary hard disk as described in ***Secondary Hard Disk Drive (for Storage Systems)*** on page 12-8.
4. Verify the ***Virtual Memory*** settings. See ***Virtual Memory*** on page 17-10.
5. Run the ***Local Data Recovery Tool***.
6. Reboot the Server PC.

Complete Server Reinstallation (both hard disks failed)

In summary, to reinstall OB **TraceVue** for the purpose of system recovery the following tasks must be completed:

- Install and format the new hard disks.
- Install Windows.
- Reinstall OB **TraceVue** with a new database.
- Reload archived data.

Caution: **You must follow the steps exactly in the order they are set out in these procedures. If you fail to do so, archived data may be lost, and recovery may not be possible.**

---

1. Locate the file or printout of the installation record, which should have been saved after the initial installation of the server (see ***Reviewing and Printing the Configuration Record*** on page 5-29). The file specifies the PC name which is needed when you reinstall the operating system.
2. Install Windows as described in ***Windows 2000 New Installation*** on page 17-6 using the PC name specified in the installation record.
3. Install OB **TraceVue** with a new database. Use the old installation record printout to select exactly the same configuration as before. After Setup, verify the configuration by comparing the new and the old installation record printout.

Note Make sure that the OB **TraceVue** Shell *Autostart* option is **not** set.

---

4. Reboot, but **do not start** OB **TraceVue**.
5. Run the Configuration Backup tool to reload the configuration backed up after initial installation. The configuration should be available on floppy disk or optical media. See also ***Configuration Backup (Internal Server Only)*** on page 15-20.
6. Use RFO to recover patient data from archive disks, going from more recent to less recent. For details on how use the RFO tool, please refer to ***Retrieve from Optical Disk (RFO Wizard)*** on page 15-28.
7. Start OB **TraceVue** at the server.
8. Start OB **TraceVue** at each client. The client setup program runs automatically and reboots the PC when finished.
9. Use a new optical disk for archiving.

Windows does not Start

Install Windows and OB **TraceVue** according to the process described in ***Primary Hard Disk Failure*** on page 15-7. Start with 2. ***Install Windows***.

Recovery Process: Internal Server without Archiving

Caution: **All data is erased when you use this procedure.**

The server does not have a backup disk. You must, therefore, replace the hard disk, and then you must reinstall Windows and OB **TraceVue**.

Complete Server Reinstallation

1. Locate the file or printout of the installation record, which should have been saved after the initial installation of the server (see ***Reviewing and Printing the Configuration Record*** on page 5-29). The file specifies the PC name which is needed when you reinstall Windows.
2. Install Windows as described in ***Windows 2000 New Installation*** on page 17-6 using the PC name specified in the installation record.
3. Install OB **TraceVue**. Use the old installation record printout to select exactly the same configuration as before. After Setup, verify the configuration by comparing the new and the old installation record printout.

Note Make sure that the OB **TraceVue** Shell *Autostart* option is **not** set.

4. Reboot, but **do not start** OB **TraceVue**.
5. Run the Configuration Backup tool to reload the configuration backed up after initial installation. The configuration should be available on floppy disk. See also ***Configuration Backup (Internal Server Only)*** on page 15-20.
6. Start the OB **TraceVue** Server.
7. Start OB **TraceVue** at each client. The client setup program runs automatically and reboots the PC when finished.

Windows does not Start

Repair of a corrupt Windows installation is not supported on systems without archiving. Reinstall the server, refer to ***Complete Server Reinstallation***.

Recovery Process: External Database Server

Caution: **All data on the external database server is erased when you use this procedure. The database can be restored from a customer's backup.**

Complete External Database Server Reinstallation

1. Locate the file or printout of the installation record, which should have been saved after the initial installation of the server (see ***Reviewing and Printing the Configuration Record*** on page 5-29). The file specifies the PC name which is needed when you reinstall Windows.
2. Install Windows as described in ***Windows 2000 New Installation*** on page 17-6 using the PC name specified in the installation record.
3. Install the OB **TraceVue** client software. Use the old installation record printout to select exactly the same configuration as before. After Setup, verify the configuration by comparing the new and the old installation record printout.
4. Restore the external database, (see ***System Administration and Configuration Guide***).

Windows does not Start

Repair of a corrupt Windows installation is not supported on the external database server. Reinstall the server, refer to ***Complete External Database Server Reinstallation***.

Recovery Process: WEB/Terminal Server

Complete WEB/ Terminal Server Reinstallation

1. Locate the file or printout of the installation record, which should have been saved after the initial installation of the server (see ***Reviewing and Printing the Configuration Record*** on page 5-29). The file specifies the PC name which is needed when you reinstall Windows.
2. Install Windows as described in ***Windows 2000 New Installation*** on page 17-6 using the PC name specified in the installation record.

Note The OB **TraceVue** client software must be installed from CD using **Add/Remove Programs**. Do **not** use the Explorer to start **setup.exe**.

3. Install the OB **TraceVue** client software. Use the old installation record printout to select exactly the same configuration as before. After Setup, verify the configuration by comparing the new and the old installation record printout.

Windows does not Start

Repair of a corrupt Windows installation is not supported on the WEB/Terminal server. Reinstall the server, refer to ***Complete WEB/Terminal Server Reinstallation***.

Recovery Process: Client

Complete Client Reinstallation

1. Locate the file or printout of the installation record, which should have been saved after the initial installation of the system (see ***Reviewing and Printing the Configuration Record*** on page 5-29).
2. Install Windows as described in ***Windows 2000 New Installation*** on page 17-6. When you are prompted for the PC name, use the name given to the client during initial installation (see printout of installation record).
3. Install the OB **TraceVue** client software. Use the old installation record printout to select exactly the same configuration as before. After Setup, verify the configuration by comparing the new and the old installation record printout.

Windows does not Start

Repair of a corrupt Windows installation is not supported on a client PC. Reinstall the server, refer to ***Complete Client Reinstallation***.

Local Data Recovery Tool

This tool is available at the Internal Server PC.

The Local Data Recovery tool repairs and validates as much of the OB **TraceVue** database as possible from uncorrupted backup database and backup patient files.

The tool is launched automatically if the most recent system shutdown was not performed correctly - for example, if the server crashed.

Note The length of time needed for data recovery depends on the size of the database and the number of open episodes. It can take from minutes to hours.

Using the Local Data Recovery Tool

Running the Local Data Recovery Tool

1. Shutdown OB **TraceVue** at the server
2. Go to **Start** → **Programs** → **TraceVue Support**, choose **Local Recovery Tool.**
3. In the **TraceVue Local Data Recovery Tool** window choose **Start**.
4. Database validation
   - Select **Perform a quick database validation** (default)
     - when running the tool as part of system maintenance
     - if OB **TraceVue** crashed at the internal server
     - if graceful shutdown at the internal server by UPS was not possible during power failure
   - Select **Perform a full database validation**
     - if OB **TraceVue** reported database errors
     - if the operating system crashed (blue screen) at the internal server
     - after power cycle without correct shutdown

Follow the instructions on screen. You can click **Show Log** to see a more detailed progress status.

Caution: **To recover as much patient data as possible, it is very important to insert the most recent archiving disk when asked. If you do not insert the most recent disk you will never be able subsequently to recover this data.**

Logfile The Local Data Recovery Tool creates a recovery log file (**C:\TV2\logdata\RecoveryTool.log**) that you can open with the OB **TraceVue** Log File browser.

Data Recovery Process

The Local Data Recovery tool first checks if the database file, the database backup file, the database transaction log file and the database transaction log backup file are available.

If, for whatever reason, a file is not available, the tool repairs as much as possible from the remaining files.

The tool then attempts to:

1. Recover the best possible database files.
2. Validate the database.
3. Validate patient files.
4. Recover additional files from optical disk.

Database Recovery

- The tool tests whether the existing database and transaction log files can be used. If they can, the files are assumed uncorrupted.
- If the transaction log is available, the tool reconstructs the database from the transaction log. Although there is no loss of data, this “database rollforward” could take up to two hours.
- If the transaction log is not available, the tool tries to recover from the database. Approximately the last five minutes of collected data may be lost.
- If only the database backup file is available, up to 24 hours data may be lost.
- If the database is accessible, but the database validation detects a discrepancy within the database, the Database Rebuild tool might repair this discrepancy. After the ***Local Data Recovery Tool*** reports a database validation error, perform the following steps:

  a. Reboot the system.

  b. Run the ***Database Rebuild Tool*** on page 14-8.

  c. Run the ***Local Data Recovery Tool*** again.

  If the Local Recovery tool still reports an error, you must reinstall the system and use RFO to recover the database.

Table 15-4 Data Loss after Recovery

Available Files			Data Loss
Transaction Log	Database	Backup Database	
✓	✓	✓	none
✓	✓		none
✓	-	✓	none
✓	-	-	open episodes
-	✓	✓	max. 5 minutes
-	✓		max. 5 minutes
-	-	✓	max. 24 hours
-	-	-	open episodes

Database Validation The validation process tests the integrity of the database. Indexes, foreign key constraints and primary keys are examined. The tool reports any errors found and is able to correct some errors automatically.

Patient File Recovery

This validation process examines each patient trace file held on the server. Any trace file found to be corrupted is replaced by a copy of its (uncorrupted) backup.

When a trace file is replaced by its backup all associated files (for example the notes file) are also replaced.

When a patient is discharged her files are deleted from the server. The patient file validation process completes any failed patient file deletions so freeing wasted space on the hard disk(s).

Optical Disk Recovery

This process recovers data from episodes that were closed after the last database backup, but are available because they are stored on the most recent archive disk.

Link Recovery Tool

The Link Recovery Tool helps to identify and repair inconsistent patient records on linked OB **TraceVue** systems.

When to Use the Link Recovery Tool

- Use this tool when OB **TraceVue** Link patient record transfer fails due to invalid or inconsistent patient record state among connected systems.
- The Link Recovery Tool must be used after complete reinstallation of a system that is connected to other OB **TraceVue** systems with OB **TraceVue** Link and participated in patient record transfer.
- The Link Recovery Tool must be used before and after performing a merge of two systems with RFO Index Merge Tool if these systems were previously connected with OB **TraceVue** Link.
- Run this tool to cleanup after improper use of Administration Tool Lock/Unlock feature.
- Run this tool to identify inconsistencies of unique patient identifier usage across linked systems. These inconsistencies can prevent OB **TraceVue** Link from working properly. Inconsistencies with unique patient identifiers must be cleaned up manually. The tool can generate two reports:
  - A list of patient records where the same unique patient identifier is used for different records.
  - A list of patient records where the same record has different unique patient identifiers on different systems.

Prerequisites

Before starting the Link Recovery tool, make sure that:

- a network connects the involved systems.
- all involved systems are set up with OB **TraceVue** Link option.
- the close process is finished for all episodes that have been transferred to other systems. Wait for 15 minutes until the data is written to the optical disk (until optical disk activity has finished) and exported to the external database.
- OB **TraceVue** is shut down on all PCs on which the Link/HL7 engine is installed (normally the external server PCs).
  This prevents further OB **TraceVue** link transfers during the time of link status assessment and recovery. Do not restart OB **TraceVue** again on these PCs until the link recovery is finished.

Using the Link Recovery Tool

Planning Where to Run Link Recovery Tool

Link Recovery needs one PC to run in *master* mode. The best PC to select as a *master* PC is one with **direct** network connection to the greatest number of internal servers of the linked systems. The *master* PC is normally an external server PC.

If there is **no direct** network connection between the *master* PC and an internal server PC you must designate one PC of each affected system to run in *slave* mode. A direct network connection between the *master* PC and the *slave* PCs is required.

Running the Link Recovery Tool

1. Shutdown OB **TraceVue** at all PCs where the Link/HL7 engine is installed. This is normally the external server of an OB **TraceVue** system.
2. On the ***master* PC** start the **Link Recovery Tool**.
3. Follow the instructions on screen. Choose **Master Mode** when asked and configure all involved systems. You can always cancel or restart the recovery process using the **Cancel** or **Back** buttons.
4. When asked, start the **Link Recovery Tool** in *slave mode* on systems with no direct connection between their internal server PC and the *master* PC.
   a. On each ***slave* PC** start the **Link Recovery Tool**.
   b. Follow the instructions on screen. Choose **Slave Mode** when asked and configure the connection to the *master* PC.
5. Complete the link recovery at the *master* PC. Follow the instructions on screen.
6. Restart OB **TraceVue** on all PCs where it has been previously shut down.

Generated Reports and Log Files

The following files are generated during the Link Recovery process in the directory **C:\Tv2\tools\LinkRecover**. Open a file to see a description of its purpose within the file header.

- **LinkRecoverMaster_Log.txt**
  Steps performed by the *master* PC during the link recovery process.
- **Agent_<*SystemName*>.txt**
  Steps performed by the agents that collect data from OB **TraceVue** systems either directly or in *slave* mode.
- **MultipleOpenEpisodes.txt**
  Report of records where an open episode exists on more than one system.
- **SameIDsForDifferentRecords.txt**
  Report of records where the same unique patient identifier has been used for different patient records.
- **DifferentIdsForSingleRecord.txt**
  Report of records where the same patient record has different unique patient identifiers on different systems.

- **RecoveryMonitor.txt**
  Logs internal error messages
- **OverduePatientRecords.txt**
  Identifies episodes that have been open for more than 12 months, which are potential candidates for closing.
- **PatStates.txt**
  Shows inconsistent link status.
- **NotClosedPregnancies.txt**
  Shows open pregnancy records that are already closed on a linked system.
- **InconsistentPregnancyStatus.txt**
  Contains a report of inconsistent pregnancy status (for example, a record that is open on one system but closed on another system)

Use a spreadsheet software (such as Excel) to format and sort the reports as required.

Configuration Backup (Internal Server Only)

This tool is used to save or reload an OB **TraceVue** database configuration.

Preconditions

- Configuration Backup runs on an OB **TraceVue** server only.
- To run the reload function OB **TraceVue** must be first shut down.
- Do not partition or format the optical disks which are to be used for OB **TraceVue** backup.

Using the Configuration Backup

Table 15-5 Using Configuration Backup

Configuration Backup Type	Supported Media for Backup	Supported Media for Reload	OB TraceVue must be shut down?
Online	Floppy Disk Hard Disk Optical Disk	*reload not supported*	No
Offline	Floppy Disk Hard Disk	Floppy Disk Hard Disk Optical Disk	Yes

Using Online Configuration Backup

1. Click the icon.
2. Check the **Configuration Backup** checkbox.
3. **On systems with the archiving option:** To save the configuration to optical disk, select the **Write Configuration backup to optical disk** radio button.

   For all systems: You can choose to back up to floppy disk or hard disk by selecting the **Write Configuration backup to the directory given below**, then browse or enter the appropriate directory path.
4. Click **Start selected backup**.

Using Offline Configuration Backup

1. Start the ***Configuration Backup Tool***.
2. Browse the appropriate directory path.
3. Click **Start Backup**.

Using Offline Configuration Reload

Prerequisites:

- You can only reload a configuration **immediately** after reinstalling OB **TraceVue** with the option **New Database**. You cannot reload a configuration if OB **TraceVue** has been started previously.
- The system must have been installed with exactly the same settings (**version and options**) as were previously installed. Use the printout of the configuration record (see ***Reviewing and Printing the Configuration Record*** on page 5-29) to select the same options.

To reload a configuration from floppy disk, hard disk, or optical disk:

1. Go to **Start** → **Programs** → **OB TraceVue Support** → **Configuration Backup**
2. Click **Start Reload**. Browse the appropriate directory path**.**

   To reloading from optical disk select **<*drive_letter*>:\DBBACKUP\OBTVCFG.BAK**
3. Click **OK**

   The configuration is reloaded from the file into the database.
4. Start each client. Setup will be started automatically.

Optical Disk Test Tool

The Optical Disk Test Tool should only be used by CEs and by trained biomedical engineers at the customer site to check a customer's OB **TraceVue** optical disk.

Note Severe dust contamination could cause the optical disk media to become corrupted. This could mean that some patient files can no longer be retrieved. If the disk became corrupt during archiving, then cleaning the media later on does not solve the problem.

Use the Optical Disk Test Tool to:

- **Low Level Check** - Check each data block on the optical disk for errors.
- **Disk Copy** - Copy a disk block by block so that it is possible to create a "refreshed" (that is, easier to read) copy of all readable blocks of a source disk.
- **File System Check** - Starts **chkdsk**, which repairs the disk file system.
- **File Check** - Check each archive file on the optical disk after the file system has been repaired. The file check creates two list files containing the names of the files with errors and the names of the files without errors.
- **Create Patient List -** Creates two lists of patient names containing the names patient records with errors and the names of the patient records without errors.

Requirements

- SCSI interface with at least two optical disk drives connected for disk copy, or one optical disk drive for the other functions.
- OB **TraceVue** must not be running.
- No application which accesses the optical disk must be running.
- To create patient lists:
  - The database file that corresponds to the optical disk.
  - OB **TraceVue** server or standalone PC with archiving.

Using the Disk Test Tool

Using with Optical Drives

- Select an optical drive in the combobox.
- If you want to change disks, use the **Eject** button.

Using with Medium Changer (Jukebox)

- Click the **Select disk...** button,
- In the dialog, select an optical disk.

Optical Disk Recovery Process

1. Run a **Low Level Check**. If the test tool reports errors, continue with step 2.
2. Copy the optical disk using **Disk Copy. Perform the following steps on the copied disk.**
3. Repair the file system of the disk by running **File System Check**.
4. Generate a list of defect files using **File Check**.
5. At the server or standalone generate lists of patients using **Create Patient List**.

To run the Disk Test Tool

1. Shut down OB **TraceVue**.
2. **Standalone drives**: **write-protect** the optical disk media! If the disk is not write-protected, the disk tool reports an error, and the optical disk is ejected.
   Medium changers: the optical disks must not be write-protected.
3. Inspect / clean the optical disk media as necessary. Instruct the customer on how to clean the media.
4. Run: **C:\TV2\PROG\DISKTOOL.EXE**
5. Enter password. Two passwords are accepted by the tool:

Password Type	Functionality Enabled
Biomed password	Low Level Check Create Patient Lists
FSE/Response Center password	All functionality

6. Select the optical drive:
   If running on medium changer select the disk you want to check.

Viewing Error States

The **Traffic Light** in the main window shows the current error state. The states are:

Traffic Light Color	Meaning
Green	No errors
Yellow	One or more error(s) occurred, but these errors could be recovered using one or more retries
Red	One or more unrecoverable error(s) occurred.
Traffic Light not visible	Disk Test Tool is idle.

Error Log Window You can also view errors in the error log window.

Double click a message to get a more detailed description of a particular message.

Click **<<Hide Log** if you do not wish to display the error log window.

Click **Show Log>>** to display the error log window.

Disk Test Tool Progress and Status The disk icon in the main window rotates when a Disk Test Tool function is running.

The progress bar in the main window displays the percentage complete of a Disk Test Tool function.

Log File The Disk Test Tool writes a general event log file **C:\DISKTOOL.LOG**. This file contains the following information from the error log window:

- Which action started.
- Action result.
- User interrupts.
- **Chkdsk** output.

Low Level Check

1. Start the Disk Test Tool, click **Start Disk Check.**

   The verification process starts; this can take up to one hour. Errors are displayed in the error window.

2. Click **Eject Disk** to remove the optical disk from the drive.

Disk Copy

Use Disk Copy to create a working copy of an archive disk when the Low Level Check reports errors. Later recovery steps may change the data on the archive disk. Do not use Disk Copy as a backup mechanism.

This function is available only when you enter the FSE/Response Center password.

Requirements

- At least two optical disk drives must be connected.
- The source disk must be write protected.
- The destination disk must be the same type and format as the source disk.

Note Disk copy can take hours depending on the number of retries. For example, a customer disk with 600 bad blocks, of which 300 are not readable, copied with 15 external retries, takes about 14 hours.

---

1. Label the destination disk, for example, **Copy of AGILSERV, <*date/time*>**.

2. Make sure that disks are inserted in the source and destination drives.
3. Start the Disk Test Tool, click the **Disk Copy** tab.
4. Select the destination disk drive in the **Select Destination Disk Drive** field.
   The source disk drive is already selected in the **Select Disk Drive** field in the Optical Disk Test Tool main window.
5. Specify the number of external retries the tool should make if it cannot read a block on the source disk. To do this enter a value in the **Read Retries** field. The minimum number of retries is one, the maximum number is 30.
6. Click **Start Disk Copy** to start the low level disk copy.
7. When the disk copy function has successfully been completed, the label file of the copy is modified. The section **[DISKTOOL]** with the value **COPY=TRUE** is added. From this you are able to identify a disk copy.

File System Check

This function is only available when you enter the FSE/Response Center password.

Caution: **Avoid using this tool with the original customer disk! This is because chkdsk may exclude blocks from the file system by marking them as bad. This can result in patient data loss!**

Use the working copy you created using Disk Copy in the previous steps

---

1. Start the Disk Test Tool, click the **File System Check** tab.
2. Click **Start Disk Check.**

   The **chkdsk** program starts.

   Errors are displayed in the error log window. The Disk Test Tool itself is unable to detect whether chkdsk found any errors on the disk, therefore you must check the error log window to see if errors were detected.

   Sometimes **chkdsk** does not fix the errors in one run. In this case run **chkdsk** until it does not show any error or any message about a repair action it performed. Each run of **chkdsk** usually takes less than one minute.

Archive File Check

This function is available only when you enter the FSE/Response Center password.

1. Start the Disk Test Tool, click the **Archive File Check** tab.
2. Click **Start File Check**.
3. The Archive File Check function decompresses and checks the following files:

OB TraceVue Version	Files Checked	Files NOT Checked
A.01.xx disks	Archive files: Trace Data the Notes Audit Trail NST Report	Patient database files in the directory: **\TRACEVUE\DBBACKUP**
A.02.xx (or higher) disks	Archive files: Trace Data the Notes Audit Trail NST Report Patient database data Archive index is checked using CRC.	

A message is displayed if an error occurs during decompression.

The file check creates the hidden directory **\FILELIST** on the optical disk. It writes to the following hidden files in the directory:

BADFILE.TXT	List of files where an error occurred during decompression
GOODFILE.TXT	List of files successfully decompressed.
MISSING.TXT	List of missing files.
UNREFERENCED.TXT	List of files not referenced in the database.

Do not manipulate these files manually. These files contain the source data out of which the patients lists are created (see ***Checking Patient Data*** on page 15-27).

4. Click the **Show the file lists** button to display the result lists of the file check. If no files were found an error message is displayed.

Checking Patient Data

After the data recovery process has been performed, you can create two lists of patient names:

- A list of patient names with errors.
- A list of patient names without errors.

Creating Patient Lists

1. Start the Disk Test Tool on the **internal server PC**.
2. Click the **Create Patient Lists** tab.
3. Select which type of list you wish to create (bad files or good files).
4. Select **Create Patient Information** to generate the following files in the optical disk **\FILELIST** directory (both files are read only and hidden):

BADPAT.TXT	List of patients with errors in the archive files.
GOODPAT.TXT	List of patients without errors in the archive files.
MISSINGPAT.TXT	List of patients with missing archive files.

5. Select **Show Patient Information** to start a Notepad which displays the patient list files. Use Notepad to save or print the data as required.

Retrieve from Optical Disk (RFO Wizard)

The RFO tool is able to restore patient data, stored on an optical disk, to the OB **TraceVue internal and external** database. This means that you are able to retrieve the archived patient episodes when you run OB **TraceVue** or run statistics using the external database.

You can select to retrieve single or multiple patients from the optical disk or a whole set of available archived patients.

It is also possible to merge archived data from different OB **TraceVue** systems into a single database. This can be necessary when multiple OB **TraceVue** systems should be merged to one system with more client PCs.

Caution: **In case of hardware failures or system corruptions check *Recovery Process After a Hardware Failure or System Software Failure* on page 15-4 before reinstalling OB TraceVue.**

RFO should only be used as the last resort if recovery of the OB TraceVue database is not possible from a backup database.

Requirements

- Optical disk drive (to read data from optical disk).
- **Storage** enabled in OB **TraceVue** software.
- OB **TraceVue** database engine is running.

Limitations

- The RFO tool can only be used with the current release of OB **TraceVue**. However, the tool can be used with media written by previous OB **TraceVue** versions.
- The RFO tool does not run if OB **TraceVue** or other support tools are running.
- OB **TraceVue** does not run if the RFO tool is running.

Caution: On a system without **Newborn** option, you **must not** use *Retrieve from Optical Disk (RFO Wizard)* to retrieve data from optical disks archived on a system installed with **Newborn** option. Retrieving newborn episodes in a system without **Newborn** option may lead to unpredictable results.

Checks Before Running the RFO Tool

Before you run the RFO tool you must do the following at the OB **TraceVue** server:

1. **For linked systems only**: Run the *Link Recovery Tool* to check the uniqueness of patient identification fields among the linked systems. This is primarily important for the merge process.
2. **Not required for new installations:** Run the ***Local Data Recovery Tool*** to verify that the current database has no errors (see ***page 15-13***).
3. **Not required for new installations:** Backup the OB **TraceVue** database and save the backup file to a secure location:
   a. Run OB **TraceVue**.
   b. In the Configuration Toolbar click the **Backup** icon.
   c. Select **Backup of Main Database** and press **Start selected backup**.
   d. Shut down OB **TraceVue**.
   e. Copy the database backup file to a safe location:
      i. Create **<*drive*>[1]:\SAVEDB**
      ii. Copy **<*drive*>:\TV2\DBBACKUP\TRACEVUE.DB** and **TRACEVUE.LOG** to **<*drive*>:\SAVEDB**

   For more information refer to the ***System Administration and Configuration Guide***.
4. Make a backup of the external database (see ***System Administration and Configuration Guide***).
5. Shut down OB **TraceVue**.
6. Close all applications that may access the optical disks, such as **Windows Explorer.**
7. Verify the customer's optical disks. To do this run the Optical Disk Test Tool: Insert the OB **TraceVue** CD-ROM and run **C:\TV2\PROG\DISKTOOL.EXE**

   For more information refer to: ***Optical Disk Test Tool*** on page 15-22.

Using the RFO Tool

The tool is password protected. Only OB **TraceVue** users with System Manager permission and the permission to change patient data can login.

At the OB **TraceVue** server:

1. Start the RFO tool. To do this:
   Go to **Start** → **Programs** → **OB TraceVue Support** → **Retrieve from Optical**.
2. Click **Next >** to step through the wizard. Follow the on-screen instructions.
3. Only if the database is empty, you will be prompted to insert the most recent optical disk to restore the archive index. This is independent from further actions.

1. **D** on systems with 2 hard disks, **C** on systems with RAID

Retrieving Data Created by OB TraceVue A.02.00 or Higher

Select the corresponding option in the Wizard to be able to import patient data created by OB **TraceVue** A.02.00 or higher. The patient selection dialog will appear showing all known patients (OB **TraceVue** A.01.x patients are not included).

Enter any required data to identify a single or several patients. It is possible to enter a time range in which the last episode of a patient was closed.

- Select the patients you want to make retrievable with OB **TraceVue** by clicking on them, or use the buttons on the right to select and deselect them.
- Pressing **Start Import Data** will prompt the user to insert the disk, which contains the selected data.

  Be sure to have all optical disks available, because the selected data might be spread over several disks.
- The data is read from the optical disk and imported into the OB **TraceVue** database using the OB **TraceVue**-Link mechanism.
- If the selected data is spread over several disks, the tool will prompt the user to insert the required disk. The tool optimizes disk changes.

Retrieving Data Created by OB TraceVue A.01.64

Select the corresponding option in the Wizard to be able to import patient data created by OB **TraceVue** A.01.64. The tool will request the disk with the required data, the patient selection dialog will appear showing all patients of the inserted disk.

- Select the patients you want to make retrievable with OB **TraceVue** by clicking on them, or use the buttons on the right to select and deselect them.
- Pressing **Start Import Data** will import the selected patient data into the OB **TraceVue** database.

Merging Databases

Select the corresponding option in the Wizard to access patient data on optical disks that was not archived on the current system. Wrong usage of the RFO tool may also result in disks, which have to be merged into the existing database.

If you have a whole set of "foreign" disks (e.g. because you want to merge two independent systems to one server) it is again very important to use the **most recently used** disk with the Merge feature.

The Wizard will ask for the required disk and will merge the data with the existing database. Only the patients on the new disk(s) will be displayed in the patient selection dialog.

Note The Merge feature does not support the merge of **external** databases.

Restoring Transfer States

When a patient is transferred between systems, the sending system (System A) transfers the patient record, together with the responsibility for the patient (the “transfer token”) to the receiving system (System B). If System B’s database is restored *before* a new episode is created for that patient, the transfer action is lost. The responsibility for the patient returns to System A, where the patient’s last episode was archived. Using the RFO’s feature "Recover Lost Transfers", it is possible for the receiving system (System B) to regain the responsibility for patient records.

The RFO Wizard reads the records of transferred patients from the sending system’s archive disks. If the last action was a transfer, the (updated) patient, pregnancy and episode information is re-written to the receiving system’s database.

RFO does not insert any information about the archive packages of the linked system into the local system. It is not possible to retrieve the patient data of the linked system in OB **TraceVue**.

As soon as the last transfer data is updated in the local system, it is essential to run the Link Recovery tool on all linked systems to update the patient states of the corresponding records.

Only patient records that were transferred to the location displayed in the edit box are imported.

Additional system names (transfer locations in patient records) found on the archive media are displayed in a dialog window and also logged in the log file.

Restoring the External Database

This feature allows the user to complete the contents of the external database by importing archived episodes (created with OB **TraceVue** Rev. A.02.00 or higher) from the optical disk. The intended use is to restore single or multiple patients that are missing on the external database, for example, in case of a temporary downtime of the external database server.

Due of the complex process of restoring the data, it may take several hours to restore the complete data of one optical disk. The dialog shows a rough time estimation based on the already processed data.

if a customer does not need statistical reports over *notes* data, it is possible to exclude *notes* data from the restore process. This will reduce the required time for operation considerably.

After Running the RFO Tool

- In linked systems, it is necessary to run the Link Recovery tool to set the correct patient states.
- Check the log file for errors.
- After merging disks OB **TraceVue** requests a new archiving disk.

Log File

The RFO tool automatically generates a log file: **C:\TV2\LOGDATA\RFOWiz.txt**. This file records information about:

- Each action performed by the user.
- Each action performed by the RFO tool.
- Errors during operation.

Error Messages

At Start-up

Error Message	Reason/Solution
The executable file is not valid. Please install correct version.	The executable file was modified after compilation. A possible reason is error during a copy
Invalid password	Re-enter using correct password.
Another part of OB **TraceVue** is already running. Press OK to exit	Only one support tool or OB **TraceVue** can be running at any one time.
Unable to connect to TraceVue database	OB **TraceVue** database is not running. Reboot server PC and try again. Verify whether the OB **TraceVue** software was installed correctly if the problem persists.

In the Main Window

Error Message	Reason/Solution
Errors occurred during operation! See logfile **C:\TV2\LOGDATA\RFOWiz.txt** for details	An error occurred when the patient data was being imported into the OB **TraceVue** database. Affected patients are listed in the log file.
Wrong Disk! Insert Disk created with OB **TraceVue** Rev. A.0x.xx	The inserted disk has the wrong format. Insert correct disk.

In the Log File

Error Message	Reason/Solution
ERROR: Importing Patient <*patient_name*> into TraceVue database failed	The selected patient data could not be imported into the TraceVue database. Possible reasons: ▪ The patient is already in the database. Data import is not necessary. **Solution:** Check if the patient is already in the database. Exit the RFO tool, restart OB **TraceVue**, and search for the patient via the patient identification screen. ▪ You are using an incomplete backup disk. **Solution:** Restart RFO and insert the original archive disk when requested. ▪ There is already another patient in the database who has identical values entered either in the Patient ID, Medical Record Number, or Social Security Number fields. **Solution:** 1. Have a look at these fields in the RFO tool main window. 2. Exit the RFO tool, start OB **TraceVue**. 3. Search for the patient in the patient identification page. 4. Change the conflicting items to another value or delete them. 5. Exit OB **TraceVue**, then restart the RFO tool and try to reimport the patient data.
INFO: Inserting Archive Location into DB failed (disk already known) or Archive Location <*name of disk*> could not be migrated!	The current disk is probably already known in the database. No action is required. Ignore the message
WARNING: Duplicate records were detected in datafiles! Some patient demographics may be lost!	Patient demographics are lost because of corrupted data records. The patient records affected are marked with **XXX**

HP NetRaid Assistant (LC 2000)

This tool is available at HP NetServer PCs with RAID disk drives only. It allows you to review and change the settings for the disk array.

For further information about the tool refer to the documentation provided by HP with your hardware:

- CD-ROM "HP NetServer Online Documentation"
- HP NetRAID Assistant online help
- HP NetRAID-1M Installation and Configuration Guide

Starting the HP NetRAID Assistant

1. **Start → Programs → NetRAID**
2. Choose **NetRAID Assistant.**

Silencing NetRAID alarm

In the NetRAID Assistant tool select

Adaptor → Alarm Control → Silence Alarm

Configuring a replacement disk

If one of the disks in the array fails, the dedicated Hot Spare disk (**HOTSP**) disk will automatically be included into the active array and is set Online (**OnLn**).

A replacement disk appears as **READY** in list of **Physical Devices**. It must be configured as Hot Spare manually:

- Right-click the replacement disk, select **Tools → MakeHotspare**.
- In the **Hot Spare Type** dialog select **Global Hot Spare**.

Note The settings are correct when four disks are **Online** and configured as one logical drive. One disk must be configured as **Hot Spare**.

HP / Compaq Array Configuration Utility

From the internal server or a remote PC, this utility let you review and change settings for the disk array.

Locating the Array Configuration Tool

1. Start **Programs → HP / Compaq System Tools**
2. Choose **HP / Compaq Array Configuration Utility**

For further information, see the HP Array Configuration Utility User Guide.

Configuring a Replacement Disk

No manual configuration is necessary:

- If a disk in the array fails, the dedicated spare disk is included into the active array automatically.
- If installing a replacement disk, the disk is included into the active array automatically. The former spare disk is excluded and its status is re-set to **spare**.

16
OB TraceVue Installation

Introduction

This chapter tells you how to completely install the OB **TraceVue** software. This is different from the setup you perform on a new system that has come straight from the factory. A new system from the factory already has OB **TraceVue** pre-installed and you can change factory defaults.

OB **TraceVue** setup guides you through the Setup process. Instructions at each screen tell you exactly what you need to do at that point. This chapter gives a brief outline of **all** possible Setup screens. The configuration you choose, however, determines exactly which screens you see.

When to Reinstall OB TraceVue

You will need to reinstall OB **TraceVue** under the circumstances described in:

- Chapter 7, ***Troubleshooting***
- Chapter 11, ***Repairing/Replacing Hardware and Media***
  If you have installed the Windows operating system after installing a new hard disk, or because the operating system was corrupt.
- Chapter 15, ***OB TraceVue Repair***
- Chapter 19, ***Software Upgrades***
- Chapter 20, ***Hardware Upgrades***
- Chapter 21, ***System Upgrades***
  After an upgrade that involves installing or reinstalling the operating system.
- ***Restoring the OB TraceVue Philips Password*** on page 16-9
  If the password of the **Philips** user must be reset to its defaults value.

Note When you reinstall OB **TraceVue** and the previously installed system was enabled for **Newborn**, it is not possible to unselect **Newborn** and **Forms based patient record**. To remove the **Newborn** system setting you must completely uninstall and then reinstall OB **TraceVue**.

OB TraceVue Setup

OB **TraceVue** setup allows you to **install** the software and to **change** system options.

Installing OB TraceVue

Prerequisites Before you can install OB **TraceVue**, the Windows operating system must be correctly installed.

Starting Setup You must run **Setup** on the internal server PC before you setup any clients.

Note On the internal server PC you must run Setup from the Installation CD. On all other PCs you can run Setup from the internal server share or from the Installation CD.

1. Logon to Windows as ***Windows administrator***.
2. Run OB **TraceVue** Setup
   a. **Internal Server PC**
      Run **\TRACEVUE\SETUP.EXE** from the Server Installation CD.
   b. **Client / External Server PC**
      Run **\\<*server name*>\server\tv2\setup\setup.exe**.
   c. **WEB/Terminal Server PC**
      i. In the ***Control Panel***, start **Add/Remove Programs**.
      ii. Select **Add New Programs**, click the button labeled **CD or Floppy**.
      iii. Open **\\<*server name*>\server\tv2\setup\setup.exe**.

Changing OB TraceVue System Options

Prerequisites OB **TraceVue** must be correctly installed.

Starting Setup You can start the OB **TraceVue** Setup at any PC.

Go to **Start** → **Programs** → **OB TraceVue Support** → **OB TraceVue Setup**

It is possible to change **System Settings** only during a server or a standalone setup because these settings can be changed/defined only at a server.

Local settings such as **Ports**, **Server Drives**, **External Interface** settings, **Auto Login**, and **Shell** settings must be changed at each PC individually.

Running Setup

The following describes all the screens you may see during setup.

1. In the first screen, enter the setup password. Click **Next**.
2. The second setup screen is the Welcome screen. It shows the copyright notice. You do not need to make any input at this screen. Click **Next** to confirm that you want to continue with the setup.
3. Screen 3 is displayed. This box shows which version of OB **TraceVue** you are about to install. Click **Next** to confirm that you want to continue with the setup.
4. If Setup finds that you are trying to install the version number of OB **TraceVue** that is already installed on the system, it displays the Found System Screen. You must decide:

Install the OB TraceVue software	The new system software is installed. (Refer to the section ***Install the OB TraceVue Software*** on page 16-4).
Only change database settings or system settings.	Change only port settings and/or system options, no files are overwritten. (Refer to the section ***System Settings*** on page 16-5). **Note:** If you select this option, the correct port settings must be selected. If not, the port settings will reset to the default settings (that is disabled).
Uninstall OB TraceVue	Deletes existing software from PC. Use this only if you are removing OB **TraceVue** from the PC, but not wanting to reinstall it on this PC. (Refer to the section ***Uninstalling OB TraceVue*** on page 16-10).

Select the option and click **Next** to continue.

Install the OB TraceVue Software

If you select to install the OB **TraceVue** software you must do the following:

1. Specify whether the system you are installing is:
   - Network Server.
   - Standalone.
   - Network Client (includes external server and WEB/Terminal server).
2. Click **Next** to continue.

   If you select a type that is different to the currently installed system type, you must confirm the change. If you install a server or standalone version where there was previously a client, you will not be able to use this PC to access the data that was previously on this PC.

Caution: **If you install a client where there was previously a standalone or server, all patient data from the old server/standalone will be lost.**

Click Next to confirm a change and continue.

3. **Server/Standalone only**

   If you have told setup to install OB **TraceVue** over an existing version of itself you have to decide whether to keep the existing database and data files and reuse them.

Option	Patient Data	Optical Disk	Client PCs
Keep existing database and data files	Patient and configuration data remain.	Use current disk (current side)	No client setup required.
Delete existing database and data files	**Patient data, and configuration data, are DELETED!**	Change Optical Disk - use new disk (or second side of current disk if not yet used)	Run setup on all clients.

   Normally you select **Keep existing database and data files** if you decide to upgrade an existing installation. Delete an existing database only if you want to reinstall OB **TraceVue** with completely new settings and patient data.

Caution: **If you select Delete existing database and data files all patient data will be lost.**

Click **Next** to continue.

System Settings

The System Settings password screen is displayed if you have selected to change the system settings, or if you have completed the steps in ***Install the OB TraceVue Software*** on page 16-4.

Note It is possible to change system settings only during a server or a standalone setup because these settings can be changed/defined only at a server.

---

1. You must enter the **Philips** password before you may change any system settings. If setup is running on a system where OB **TraceVue** is already installed, you can select **Do not change system settings**, then the password is not required and you skip the option change screen that follows.

   If there is no previous installation on this PC, you must enter the password and complete the options change screen that follows.

   Click **Next** to continue.

2. The System Settings Screen is displayed. This box lets you change the system settings. Choose the options that are appropriate for your customer.

Basic Alerting	Choose this setting if the customer does not require advanced alerting.
Advanced Alerting	Choose this to enable system-wide access to the advanced alerting rule sets as well as the basic alerting rule sets.
Storage	Choose this to activate system-wide archiving.
Forms based patient record	Select this setting to enable forms based patient record.
Newborn Charting	Select to enable newborn functionality. Can only be selected if **Forms based patient record is enabled**.
ADT Interface (HL7)	Select if you require ADT Interface.
OBTV to OBTV Link (requires storage)	Select to link together individual OB **TraceVue** systems. **Note:** For the Link to work, **OBTV to OBTV Link** must have been selected during internal server setup.
Remote Trace Transmission	Select to enable remote trace transmission capability.
Patient record attachment management	Select this setting to enable patient record attachment management.
Enable Audit Trail	Select to enable the Audit Trail.
Number of clients	Enter the number of clients (including WEB client licenses) plus external server (if any)[1].

1. The limits given in Table 18-2, ***Server Memory, Clients, Fetal Monitors***, on page 18-4 must not be exceeded.

Click **Next** to continue.

Configure Settings

This box allows you to define which setting you want to configure during setup. Choose from:

PC settings	Define port settings
	Define Server Drives settings
	Define External Interface settings (OBTV to OBTV Link, ADT Interface, External Database)
	Define use of Auto Login
	Define OB **TraceVue** Shell settings
Additional System Settings	Define System Language
	Define ADT Patient Identification field (for HL7)
	Configure IP Addresses of Servers for Remote Clients

You are only able to configure the items that you select here. If you do not select an item here, you will not see the configuration screen for this item. The following section describes each screen.

Fetal Monitor Connections (Ports)

This screen lets you define for **which type of data acquisition** the existing ports will be used. It is available on network clients, standalone PCs and internal server PCs (less than four clients).

Local: Fetal Monitor connected directly to the PC (RS-232) or via serial port server.

Remote: Remote trace transmission via modem. The modem must be connected directly to the PC (RS-232).

Table 16-1 Number of Fetal Monitor Connections

Port	Connection Type	Number of FM Connection at PCs ...	
		... without serial port server	... with serial port server
Local	direct RS-232	4	4
	serial port server	n/a	16
Remote	modem direct RS-232	4	4
Maximum per PC		4	16

Note If serial ports are used for other purposes (e.g. UPS or modems), then the ports do not appear in the list. The maximum number of Fetal Monitor connections may be decreased.

Disk Drives (Standalone Drives)

Specify the drives for the server PC. You can specify local drives only. Consult the following table to see which drives you should specify, according to the available drives on the system you are installing..

	System Type				
	No Archiving	Archiving			
		without RAID		with RAID	
Optical Drives	n/a	1	2	1	2
Backup drive	C	D	D	C	C
Archive drive	*disabled*	E	E	E	E
Retrieve drive	*disabled*	E	F	E	F

Disk Drives (Optical Medium Changers)

To use a connected medium changer for archiving check **Use the installed Autochanger**.

Specify the backup drive for the server PC. You can specify local drives only.

System Type	without RAID	with RAID
Backup drive	D	C

Note

It is not possible to assign the internal disk drives of the optical medium changer.

ADT Patient Identification

Select a Patient Identification field from the list.

System Language

Select a language for the whole OB **TraceVue** system.

External Interface Settings

You must make sure that the corresponding options are enabled during server setup. Select from the following options.

Install ADT Interface/OBTV to OBTV Link on this PC.	Only possible to select when option OB **TraceVue** Link is enabled. Only one PC can have ADT Interface. Only possible if the ADT option was selected. HL7 and OBTV to OBTV Link always reside on one PC.
Install External Database on this PC	Only available on client PC if no data acquisition is configured.
Install a new External Database	All data is deleted in current external database.

Keep installed External Database	

Auto Login

This determines whether automatic login onto Windows will occur any time the PC is switched back on. If you specify this, you must provide the user password. The default user password is **user**.

If you need to interrupt auto login: see ***Interrupting Auto Login*** on page 3-6.

If you need to set or reset a password: start ***Administrative Tools*.**

OB TraceVue Shell

This option allows you to exchange the standard windows shell for an OB **TraceVue** specific shell. This shell only allows you to start OB **TraceVue**, and no other applications.

OB TraceVue Shell is automatically DE-INSTALLED if:

The OB **TraceVue** shell is already installed, and you do not check the install shell check box in this Install OB **TraceVue** Shell setup screen.

Word and Excel Templates

If you reinstall OB **TraceVue** and Setup finds already installed Word or Excel templates, it asks whether to keep these existing templates, or install new ones.

If you upgrade OB **TraceVue** Setup moves the existing templates to a backup directory and installs the new templates.

See also ***Upgrading Word and Excel Templates*** on page 19-24.

Configure IP Addresses of Servers for Remote Clients

Specify the addresses of the internal and external server to be accessed by remote clients. For more information refer to ***Installing and Configuring Remote LAN Clients*** on page 6-16.

Server Name (client only)

OB **TraceVue** clients need to know their server PC. Enter the PC name of the internal server into the edit field.

Finishing Setup

Setup copies the files and configures the installed system and database.

If you select database settings which do not match, a screen is displayed informing you that you must redefine them. To do this click **Next**.

If setup cannot find the files to copy, a screen is displayed. You must browse and select the directory in which the files are stored. Setup does not continue until you have selected the correct directory.

After setup has copied the files and configured the system and database, a screen is displayed telling you that setup is successful. You must reboot the PC to run OB **TraceVue**. To do this click **Finish**.

If setup fails a message is displayed. Click **OK** to return to the Windows main screen. Contact your local support.

Restoring the OB TraceVue Philips Password

Users can change the password of the **Philips** user.

To restore the password of the **Philips** user you must reinstall the OB **TraceVue** software:

1. Run the OB **TraceVue** Setup from the current CD-ROM at the internal server:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**
   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - Select **Leave the current installed document template directory as it is.**
2. Press Finish to reboot the PC.
3. Apply available OB **TraceVue** service packs for this revision.

Installing / Upgrading Word and Excel Templates

- When you select **Install the OB TraceVue Software** for reinstallation you can choose to **Leave the current installed document template directory as it is**. No further action is required in such a case.
- If you installed new templates see ***Installing Word and Excel Templates*** on page 6-53.
- If you need to upgrade customized templates see ***Upgrading Word and Excel Templates*** on page 19-24.

Uninstalling OB TraceVue

To uninstall OB **TraceVue**, run **OB TraceVue Setup**. Select **Uninstall the existing OB TraceVue Software**.

The uninstall routine deletes all program files.

It does not remove the ODBC components because these may be used by other applications.

Internal Server **Be careful when you uninstall the internal server. The uninstall routine deletes all program files, all data files and the entire database.**

All data will be lost.

Clients A client that must be removed permanently from the OB **TraceVue** system must have a network connection to the OB **TraceVue** internal server. The client will then be removed from the list of OB **TraceVue** clients automatically.

If the client has no connection the OB **TraceVue** internal server PC while running uninstall remove the client PC from the **PC Configuration** manually after uninstall has finished.

Caution: **When replacing a client do not uninstall OB TraceVue while the client is connected to the internal server. This ensures that the client data remains in the database and the replacement client (with same PC name) gets the same settings.**

17
Windows 2000 Installation

Introduction

This chapter describes how to install the Windows 2000 operating system on PCs to be used with OB **TraceVue**.

Note If you are upgrading an earlier version of OB **TraceVue**, see Chapter 18, ***Upgrade Overview*** before you begin.

The procedure for setting up servers, standalone, and client PCs is very similar. You must have a knowledge of Windows.

Install Windows 2000 Server at the OB **TraceVue** server first. You can then install Windows 2000 Professional at the OB **TraceVue** clients.

This chapter describes

- Windows 2000 New Installation
- Windows 2000 Upgrade Installation
- Windows 2000 Configuration
- Troubleshooting
- Component Installation
  - ***Second Network Interface Card***
  - ***Light Pen***
  - ***Additional RS-232 Interface Card (J02)***
  - ***SCSI Host Adapter***
  - ***Optical Medium Changers (Jukeboxes)***
  - ***UPS Software***
- Hardware Configuration

Requirements

To install Windows 2000, you require:

- OB **TraceVue** server CD-ROM to install a server, standalone PC, external server
- OB **TraceVue** client CD-ROM to install a client PC.
- Microsoft Office CD-ROM (Forms Based Patient Record option only).

When to Install Windows

You should perform a complete Windows installation after you exchange the internal server C-drive, a client PC hard drive, or if the Windows operating system has become corrupt.

If the PC hangs at the blue screen when you power on, the operating system may be corrupt, although the cause may be a problem with a hardware component.

Caution: **When reinstalling Windows all data on the hard drive will be lost!**

Before reinstalling Windows refer to Chapter 15, ***OB TraceVue Repair*****.**

Boot Floppy Disk

If your PC does not support booting from CD-ROM or you want to install your client PC via network, you can create a copy from the image stored on the OB **TraceVue** CD-ROM.

1. Put a formatted blank floppy in drive A:\
2. Browse to the **disks** folder on the CD-ROM, then double-click:

   SRV_BOOT.CMD: for all OB **TraceVue** server PC types

   CLI_BOOT.CMD: for all client PCs
3. Follow the on-screen instructions.

Preliminary Work

This section describes how to prepare your PC to install Windows. The procedure for preparing different types of PC, as well as servers, standalone, and client PCs is very similar.

Additional Drivers

Windows automatically finds the drivers it needs during installation. Additional drivers that are needed for re-installation after upgrades are on the server CD-ROM and are copied to **C:\Drivers**.

Pre-installation Checks

Before installing Windows, you should:

- ❑ Check BIOS settings.
- ❑ Enable boot from CD-ROM / floppy disk drive.
- ❑ Load the default SCSI BIOS (servers with archiving option only).
- ❑ Check hard disk drive settings
  (if you are fitting a new hard disk to a server with archiving option only).

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items given in the PC *User's Guide* as listed in the table below:

PC	Manual
HP Kayak XA	*HP Kayak XA PC Workstation User's Guide* [Part Number D6738-90001] If you have fitted a new HP D6938x internal SCSI hard drive, refer to ***Secondary Hard Disk Drive (for Storage Systems)*** on page 12-8.
HP Vectra VL400	*HP Desktop PCs Quick Reference Guide* [Part Number 5970-5070EN].
HP Vectra VL420	*HP Desktop PCs Quick User's Guide* [Part Number 5970-5190-EN].
HP NetServer LC2000	*Installation Guide* [Part Number D8514-90000].
Compaq Evo D510	*Compaq Evo Documentation Library* CD [279380-001]
HP Compaq D530	*HP Compaq business desktop documentation library* CD [319828-001]
HP Compaq dc7100	*HP Compaq business desktop documentation library* CD [359537-DN1]
Compaq ProLiant ML370 G2	*Compaq ProLiant ML370 G2 Documentation* CD [203518-001]
HP ProLiant ML370 G3	*HP ProLiant ML370 G3 Documentation* CD [281777-022]

PC	Manual
HP ProLiant ML350 G4	*HP ProLiant ML350 G4 Documentation* CD [356696-021]
HP Compaq dc7600	*HP Compaq dc 7600 Documentation and diagnostics* CD [383755-DN1]
HP ProLiant ML350 G4P	*HP ProLiant ML350 G4P Documentation* CD [382581-021]

BIOS Version and BIOS Settings

Make sure the PC's BIOS version and BIOS settings and are as shown in the appropriate chapter for the PC you are using:

- ***BIOS Version for HP Kayak XA***
- ***BIOS Version for HP Kayak XU***
- ***BIOS Version for HP Vectra VL 400***
- ***BIOS Version for HP Vectra VL 420***
- ***BIOS Versions for the HP NetServer LC2000***
- ***BIOS Version for Compaq Evo D510***
- ***BIOS Settings for HP Compaq D530***
- ***BIOS Settings for HP Compaq dc7100***
- ***BIOS Settings for HP Compaq dc7600***
- ***BIOS Version for Compaq ProLiant ML370 G2***
- ***BIOS Settings for HP ProLiant ML370 G3***
- ***BIOS Settings for HP ProLiant ML350 G4***
- ***BIOS Settings for HP ProLiant ML350 G4P***

To Enable Boot from Drive A:

In the **BIOS** settings make sure Drive A: is **unlocked**, and that **start from floppy disk** is enabled.

To Enable Boot from CD-ROM:

In the **BIOS** settings make sure that **start from CD-ROM** is enabled.

Note: On some PC types it may be necessary to press <F8> during the boot process to select **Start from CD-ROM**.

Load SCSI BIOS

This applies only to a PC fitted with a SCSI host adapter.

The SCSI BIOS is separate from the PC BIOS. Its settings are stored on the SCSI host adapter board.

OB **TraceVue** requires the default SCSI BIOS settings for all PCs EXCEPT the Kayak XA PCs!

To ensure that the correct SCSI BIOS settings are used refer to:

- ***SCSI BIOS Settings for HP Kayak XA***

- ***SCSI BIOS Settings for HP Kayak XU***
- ***SCSI BIOS Settings for HP Vectra VL 400***
- ***SCSI BIOS Settings for HP Vectra VL 420***
- ***SCSI BIOS Settings for HP Netserver LC2000 (HP P2478U / P1802U)***
- ***SCSI BIOS Settings for Compaq Evo D510***
- ***SCSI BIOS Settings for HP Compaq D530***
- ***SCSI BIOS Settings for HP Compaq dc7100***
- ***SCSI BIOS Settings for HP Compaq dc7600***
- ***SCSI BIOS Settings for Compaq ProLiant ML370 G2***
- ***SCSI BIOS Settings for HP ProLiant ML370 G3***
- ***SCSI BIOS Settings for HP Proliant ML350 G4***
- ***SCSI BIOS Settings for HP Proliant ML350 G4P***

Windows 2000 New Installation

Installation takes approximately one hour per PC. If the PC appears not to be working just wait for a few minutes - the setup should still be running in the background!

If you use the serial number as the PC name: The system suggests the serial number as PC name. Accept this.

Preparations

1. If you are installing a PC with second network interface card refer to Table 17-1, ***NIC Installation Types***, on page 17-21 for information on NIC installation types.
2. Connect the first network interface card to the OB **TraceVue** network.
3. Do **not** connect the second network interface (if available) to the network.
4. If you have a server with storage option:
   - Connect the standalone optical drive(s) and turn the power on.
   - Connect the medium changer but do **not** turn the power on.

Note **Standalone drives: Remove any optical media from the drives otherwise the installation procedure may hang.**

Medium Changer: Switch the medium changer to standby.

5. Create a new partition on **every** PC
   a. Boot from the OB **TraceVue** CD-ROM or boot floppy disk.
   b. Select the menu item **Remove existing partitions and create new ones**.
   c. Follow the on-screen instructions.
   d. The PC reboots automatically.
   e. Repeat this for **all** PCs in network.
6. Follow the instructions below appropriate for the PC you are installing.

Notes **Order of Installation**

It is a prerequisite that the internal server **must** be installed, up and running before installing any other OB **TraceVue** PC.

All PCs (except Standalone) you are installing must have a network connection:

- servers PCs must be connected to a hub or switch
- client PCs must have a network connection to the server PC.

Passwords

If you change the default password of the Windows user **OBTV Administrator** at the internal server PC, the automatic OB **TraceVue** installation does not work for

- external database server PCs
- client PCs.

Start the OB **TraceVue** setup manually in such a case.

Server/Standalone Setup

When installing OB **TraceVue** on a server PC equipped with 2 network interface cards you cannot select automatic OB **TraceVue** installation.

OB **TraceVue** installation requires the IP addresses of the internal and external network interface card. This information can only be entered if starting the OB **TraceVue** setup manually.

1. Insert the server installation CD into the CD-ROM drive.
2. Boot with the OB **TraceVue** CD-ROM or boot floppy disk.
3. Select OB **TraceVue new installation (all server types)**.
4. Select OB **TraceVue Server/Standalone**.
5. Follow the on-screen instructions.
   Accept the default IP address, with LAN subnet number of 1.

External Database Server Setup

1. Insert the server installation CD into the CD-ROM drive.
2. Boot with the OB **TraceVue** CD-ROM or boot floppy disk.
3. Select OB **TraceVue new installation (all server types)**.
4. Select OB **TraceVue External Server**.
5. Follow the on-screen instructions.

WEB/Terminal Server Setup

1. Insert the server installation CD into CD-ROM drive.
2. Boot with the OB **TraceVue** CD-ROM or boot floppy disk.
3. Select OB **TraceVue new installation (all server types)**.
4. Select OB **TraceVue WEB/Terminal Server**.
5. Follow the on-screen instructions.

Client Setup

1. Boot the client with the OB **TraceVue** CD-ROM or boot floppy disk.
2. Installation options:
   a. **Run client installation from internal server**[1]:
      - Insert the **Client Installation CD-ROM** at the server.
      - Select OB **TraceVue Client (M1382x) new installation**[2].
      - Select the type of PC you want to install.

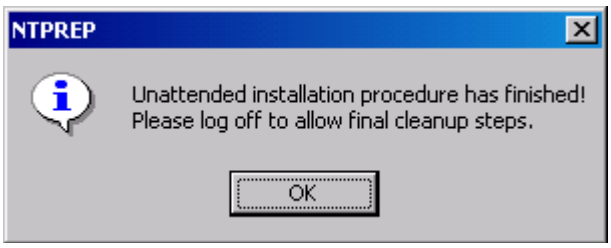
   b. **Run client installation from local CD-ROM**
      - Insert the **Client Installation CD-ROM** at the client.
      - Select **OB TraceVue Client (M1382x) new installation**.
      - Select **Client Installation from local CD-ROM drive**.
3. Follow the on-screen instructions.

---

1. If you need to install five or more clients it is quicker to do these simultaneously by removing the **CDROM** share of the internal server CD-ROM drive and copying the entire client CD-ROM to a folder on the server hard disk. Share this folder as **CDROM**. After installation, restore the original CD-ROM share.
2. If the client is equipped with two NICs and connecting the OB **TraceVue** server fails, connect the OB **TraceVue** network cable to the other NIC.

Final Check After Installation

The installation is complete when you see this dialog.



Click OK, then

- **Verify that the drive letters are set as described in the appropriate Drive Configuration section for your PC.**

  See ***Checking and Changing Drive Letters*** on page 17-17.

- **Enable Advanced Power Management (Kayak XA only)**

  Control Panel → **Power Options** → **APM**

Additional Windows Configuration and Driver Installation

- ***DHCP Server Configuration on page 17-15***
- ***Terminal Services Configuration*** on page 17-16
- ***Second Network Interface Card*** on page 17-20
- ***Optical Medium Changers (Jukeboxes)*** on page 17-27

Install OB TraceVue

If you did not install OB **TraceVue** automatically see *Chapter 16, **OB TraceVue Installation*** for details.

Check OB TraceVue Configuration

If you have installed OB **TraceVue** automatically as part of the Windows installation you must check the OB **TraceVue** configuration. Some options have fixed settings that cannot be changed when installing automatically (e.g. shell settings, auto-login, port configuration, HL7/Link PC).

See ***Running Setup*** on page 16-3. Select **Only change database settings or system settings.**

Windows 2000 Upgrade Installation

Upgrading from Windows NT 3.51

See ***Upgrading From A.01.64 (Windows NT 3.51)*** on page 19-3

Upgrading from Windows NT 4.0

See ***Upgrading from A.02.00 (Windows NT 4)*** on page 19-3 and ***Upgrading from A.02.10 or Higher (Windows NT 4)*** on page 19-4.

Windows 2000 Configuration

Configuration is done automatically during the installation process. The steps are listed here to give you an overview of what is done, or if you need to configure the system manually.

Server Automatic Configuration

Server Automatic Configuration		
System Configuration		
Operating System		Windows 2000 Server (OPK[1]), service pack 4
PC Name		PC Serial Number
Network protocols		TCP/IP, NetBT, NetBEUI
Network services		MS Server, DHCP Server, MS Client
TCP/IP configuration		IP-Address: 172.16.*X*.2 (where *X* is typically "1") DNS: No WINS: No
DHCP configuration		Range: 172.16.*X*.10 .... 172.16.*X*.254 Range length: 16 bit Subnet mask: 255.255.0.0 Lease duration: 14 d
Application response		Optimize performance for: **Background services**
Display Boot Menu at Startup		2 s
Power management options		**Presentation**
Screen resolution, color depth, refresh rate		1024 x 768, 16bit, min. 70Hz
Display color scheme		**Windows Classic**
Virtual Memory		
Page file size for PCs with **one** logical disk		Initial size (MB): multiply the amount of physical RAM by 1.5[2] Max. size (MB): multiply the amount of physical RAM by 2.0
Page file size for PCs with **two** logical disks[3]	Drive C:	Initial size (MB): 90MB Max. size (MB): 90MB
	Drive D:	Initial size (MB): multiply the amount of physical RAM by 1.5 Max. size (MB): multiply the amount of physical RAM by 2.0
Drive Configuration		
Hard disk 1		Drive C, max, NTFS partition (contains Windows 2000)
Hard disk 2		Drive D, max, NTFS partition (optional)
CDROM		Drive H, for installation, must be shared with name **CDROM**

Server Automatic Configuration	
Optical Drives (system with standalone drives)	
MODrive 1	Drive E, archive drive (optional)
MODrive 2	Drive F, retrieve drive (optional)
Optical Drives (system with medium changer)	
MODrive 1/2 (medium changer drives)	Archive and retrieve drives, drive letters undefined (optional)
MODrive 3 (standalone)	Drive E, retrieve drive (optional)
User Configuration[4]	
Administrator	Name: **Administrator**, password: **OB Tracevue** Member of Groups: **Administrators**
User	Name: **user**, password: **user** Member of Groups: **Users**
Regional Settings (to be configured depending on language option)	
Locales	See ***Settings for Input Locale*** on page 17-18.
Time Zone	Depending on country
Time format[5]	**H:mm:ss** (24-hour format)
Automatically adjust clock for daylight saving changes	Disabled
Drivers and Software (to be installed if required)	
Optical Medium Changer driver (see ***Optical Medium Changers (Jukeboxes)*** on page 17-27)	
Lightpen driver (option H03)	
RS-232 Card driver (option J02)	
UPS software	

1. OEM Preinstallation Kit
2. This is the page file size recommended by Windows.
3. The Windows installation creates a page file on drive **C:** only. You must manually adjust the size for drive **C:** and add a page file for drive **D:**.
4. When adding users, make sure all Windows users use the same time format
5. When changing the time format, make sure all Windows users use the same time format

External Database Server Automatic Configuration

External Database Server Automatic Configuration	
System Configuration	
Operating system	Windows 2000 Server (OPK), service pack 4
PC Name	PC Serial number
Network protocols	TCP/IP, NetBT, NetBEUI
Network services	MS Client, DHCP client
TCP/IP configuration	DHCP client, all information provided by server
Application response	Optimize performance for: **Background services**
Display Boot Menu at startup	2 s
Power management options	**Presentation**
Screen resolution, color depth, refresh rate	1024 x 768, 16bit, min. 70Hz
Display color scheme	**Windows Classic**
Virtual Memory	
Page file size	Initial size (MB): multiply the amount of physical RAM by 1.5[1] Max. size (MB): multiply the amount of physical RAM by 2.0
Drive Configuration:	
Hard disk 1	Drive C, max. NTFS partition (contains Windows 2000)
CDROM	Drive H, enabled
User Configuration[2]	
Administrator	Name: **Administrator**, password: **OB Tracevue** Member of Groups: **Administrators**
User	Name: **user**, password: **user** Member of Group: **Users**
Regional Settings (to be configured depending on language option)	
Locales	***Settings for Input Locale*** on page 17-18.
Time Zone	Depending on country.
Time format[3]	**H:mm:ss** (24-hour format)
Automatically adjust clock for daylight saving changes	Disabled
Drivers & Software (to be installed if required)	
Lightpen driver (option H03)	

1. This is the page file size recommended by Windows.
2. When adding users, make sure all Windows users use the same time format
3. When changing the time format, make sure all Windows users use the same time format

WEB/Terminal Server Automatic Configuration

WEB/Terminal Server Automatic Configuration	
System Configuration	
Operating system	Windows 2000 Server (OPK), service pack 4
PC Name	PC Serial number
Network protocols	TCP/IP, NetBT, NetBEUI
network services	MS Client, DHCP client
TCP/IP configuration	DHCP client, all information provided by server
Application response	Optimize performance for: **Background services**
Display Boot Menu at startup	2 s
Power management options	**Presentation**
Screen resolution, color depth, refresh rate	1024 x 768, 256 colors, min. 70Hz
Display color scheme	**Windows Classic**
Virtual Memory	
Page file size	Initial size (MB): multiply the amount of physical RAM by 1.5[1] Max. size (MB): multiply the amount of physical RAM by 2.0
Drive Configuration:	
Hard disk 1	Drive C, max. NTFS partition (contains Windows 2000)
CDROM	Drive H, enabled (if installed)
User Configuration[2]	
Administrator	Name: **Administrator**, password: **OB Tracevue** Member of Groups: **Administrators**
User	Name: **user**, password: **user** Member of Group: **Users**
Regional Settings (to be configured depending on language option)	
Locales	***Settings for Input Locale*** on page 17-18.
Time Zone	Depending on country.
Time format[3]	**H:mm:ss** (24-hour format)
Automatically adjust clock for daylight saving changes	Disabled
Terminal Services Configuration	
see ***Terminal Services Configuration*** on page 17-16	

1. This is the page file size recommended by Windows
2. When adding users, make sure all Windows users use the same time format
3. When changing the time format, make sure all Windows users user the same time format

Client Automatic Configuration

Client Automatic Configuration	
System Configuration	
Operating system	Windows 2000 Professional (OPK), service pack 4
PC Name	PC Serial number
Network protocols	TCP/IP, NetBT, NetBEUI
Network services	MS Client, DHCP client
TCP/IP configuration	DHCP client, all information provided by server
Application response	Optimize performance for: **Background services**
Display Boot Menu at startup	2 s
Power management options	**Presentation**
Screen resolution, color depth, refresh rate	1024 x 768, 16bit, min. 70Hz
Display color scheme	**Windows Classic**
Virtual Memory	
Page file size	Initial size (MB): multiply the amount of physical RAM by 1.5[1] Max. size (MB): multiply the amount of physical RAM by 2.0
Drive Configuration:	
Hard disk 1	Drive C, max. NTFS partition (contains Windows 2000)
CDROM	Drive H, disabled (if installed)
User Configuration[2]	
Administrator	Name: **Administrator**, password: **OB Tracevue** Member of Groups: **Administrators**
User	Name: **user**, password: **user** Member of Group: **Users**
Regional Settings (to be configured depending on language option)	
Locales	***Settings for Input Locale*** on page 17-18.
Time Zone	Depending on country.
Time format[3]	**H:mm:ss** (24-hour format)
Automatically adjust clock for daylight saving changes	Disabled
Drivers & Software (to be installed if required)	
Lightpen driver (option H03)	
RS-232 Card driver (option J02)	

1. This is the page file size recommended by Windows.
2. When adding users, make sure all Windows users use the same time format
3. When changing the time format, make sure all Windows users user the same time format

Manual Windows Configuration

Note You must log on as ***Windows administrator*** to configure Windows.

DHCP Server Configuration

This step is performed automatically! If you need to configure the DHCP server manually, follow these instructions:

1. Open ***Administrative Tools*** → **DHCP**
2. **Action** → **Add Server...** → enter name of the Server PC you are working on and click **OK**
3. Highlight the server you just added, **Action** → **New Scope...**
4. The New Scope Wizard appears, click **Next**
5. Enter the name (OB **TraceVue**) and description (OB **TraceVue** Subnet) of the new scope, click **Next**
6. Enter the start IP address (**172.16.X.10**) and the end IP address (**172.16.X.254**) where X is the LAN subnet number (typically "1"). Keep the default values for length (**16**) and subnet mask (**255.255.0.0**) click **Next**.
7. Exclusions: do not enter anything. Click **Next**
8. Lease duration: Set **14** in the Days field, click **Next**
9. Configure DHCP options: select **Yes, I want to configure...**, click **Next**
10. Router (default gateway): enter the default gateway if connected to a router port. Click **Next**
11. Domain name and DNS server: do not enter anything, click **Next**
12. WINS servers: do not enter anything, click **Next**
13. Activate scope: select **Yes I want to activate...**, click **Next**
14. Click **Finish** and close the DHCP manager.

Terminal Services Configuration

Default Configuration

WEB/Terminal Server Default Configuration	
Logon Settings	
User name	**user**[1]
Password	user
Always prompt for password	not checked
Sessions	
Override user settings	checked
End a disconnected session	5 minutes
Active session limit	Never
Idle session limit[2]	30 minutes
When session limit is reached or connection is broken	Disconnect from session
Permissions	
Administrators	full control
SYSTEM	full control
Users	User access, guest access

1. If you select a different logon user make sure to ***Set Macro Security and AutoRecover Time*** for that user if you want to allow access to MS Office on WEB client PCs.
2. You can also configure the idle time-out in the OB **TraceVue** PC configuration (individually for each WEB/Terminal client PC). If you use the OB **TraceVue** idle time-out functionality it is recommended to set the WEB/Terminal server's **Idle session limit** to **never**.

Changing the Configuration

At the WEB/Terminal Server:

1. Start ***Administrative Tools*** → **Terminal Services Configuration**
2. Open **Connections**, double-click **OBTV-Tcp**.

Note Do not change **When session limit is reached or connection is broken** to **End session**.

Checking and Changing Drive Letters

When installing Windows or when replacing harddisks, CD-ROM drives, or optical drives Windows automatically assigns drives letters. The drive letters may not match the OB **TraceVue** requirements.

Refer to the configuration table for the appropriate PC (section *Drive configuration*):

- ***Server Automatic Configuration*** on page 17-10
- ***External Database Server Automatic Configuration*** on page 17-12
- ***WEB/Terminal Server Automatic Configuration*** on page 17-13
- ***Client Automatic Configuration*** on page 17-14

If you need to change drive letters:

1. Start ***Disk Management***.
2. Right-click a drive, select **Change Drive Letter and Path**.
3. Click **Edit** to assign the new drive letter.

Time Zone

Double-click on the displayed time on the toolbar and select the tab **time zone**.

1. Select your Time Zone in the drop down list box.
2. Select the **date / time** tab and set the current time and date.
3. Make sure the **automatically adjust daylight saving** flag is turned off. Exit with **OK**.

Automatic Daylight Saving Changes

OB **TraceVue** does not support automatic daylight saving changes. To switch off automatic daylight saving changes:

- Shutdown OB **TraceVue** at the internal server PC.
- At the internal server PC double-click the displayed time on the toolbar and select the tab **time zone**.
- Unchecked **Automatically adjust clock for daylight saving changes**.
- Click **Apply**.
- Click **OK**.
- Restart the OB **TraceVue** system (Recommended: ***System Overview Tool*** - Start OB **TraceVue** on Server and Clients).

Regional Settings

When installing OB **TraceVue**, the appropriate regional settings are applied automatically, depending on the ordered language option. However, if you need to apply these manually:

1. In the ***Control Panel*** select **Regional Options**.
2. **General**:
   a. Select **Your locale (location)** for which the system is ordered. This setting applies to the way the numbers, times, date and currency are displayed. It is independent of the OB **TraceVue** language.
   b. **Language settings for the system**: select the languages the operating system must support.
   c. Click the **Set default...** button. In the dialog select the default *system* locale. The default system locale must match the language of OB **TraceVue**. This setting ensures that the correct code page and fonts are used by OB **TraceVue**.
3. **Input Locales**: This setting applies to the input language and keyboard layout and Input Method Editor (IME)
   a. In the **Add Input Locale** dialog, select the input locale from the table below, based on ordered localization option and close the window.
   b. Select the locale that was just added and click **Set as Default** to make this the default *input* locale for this system.

Settings for Input Locale

OB TraceVue language setting	User Locale System Locale	Input Language Keyboard Layout / IME
English	English (US)	English (Unites States) - US

Troubleshooting Windows 2000 Installation

Windows 2000 Works but Final Message Box Does Not Appear

If Windows 2000 seems to be installed, but

- the PC appears to do nothing for more than five minutes **and**
- the final message box saying that the installation procedure has finished has not yet appeared

reboot the PC. This will solve the problem in most cases and the installation procedure will continue automatically.

If this does not help, open the Explorer and start the file **C:\CONFIG\NTPREP.EXE** on the local hard disk. This file starts the automatic Windows 2000 configuration for your installation. Wait until the final message box appears (the PC will reboot several times).

The directory **C:\CONFIG** is deleted automatically when you reboot after the successful installation and configuration of Windows 2000.

After installation, check the configuration as described in ***Windows 2000 Configuration*** on page 17-10.

Unable to Boot PC or Install Windows 2000

In case of severe BIOS problems (POST errors) clear the CMOS memory and load the default BIOS configuration.

Refer to the *User's Guide* for the PC for details of how to access the system board switches, and which switch is used to clear the CMOS.

The procedure is summarized below:

1. Shutdown and power down the PC. Unplug the power cord, remove the PC cover.
2. Set the according system board switch to clear the CMOS.
3. Refit the cover, and reconnect only the power cable.
4. Switch on the PC. This erases the CMOS memory. A message will be displayed.
5. Switch off the PC, disconnect the power cable, and remove the cover.
6. Set the system board switch to retain the CMOS.
7. Refit the PC's power supply and the PC cover, and reconnect the power cable and LAN connection.
8. Switch on the PC. It displays an error message.
9. Run BIOS **setup**. Default values are automatically loaded.
10. When you are satisfied that the BIOS settings are as required (**see BIOS sections in the appropriate PC chapter**) save the configuration and exit from **BIOS setup**.

Component Installation

Note You must log on as ***Windows administrator*** to install device drivers.

All PCs except HP LC2000, Compaq Evo D510, HP Compaq D530, HP Compaq dc7100, ProLiant ML370 G2/G3, and ProLiant ML350 G4:

For all hardware upgrades that include an additional interface card (ISA or PCI) you must manually adjust the BIOS In the **Main** section set **Reset Configuration Data** to **Yes.**

This feature lets the system reorganize its resource configuration so that new hardware will not conflict with existing interface cards. The item will be set to 'No' automatically after reboot.

Windows automatically detects other components, such as the sound card, tape drive and so forth. No additional configuration is necessary after component hardware installation.

Second Network Interface Card

Note See also ***Integration Guide***, chapter Network Guide

Caution: **Two network cards of a single PC must not be connected to a single physical subnet (must not be in a single broadcast domain) for the configuration used with OB TraceVue. That means you must not plug two NICs of a single PC into the same hub or switch. Failure to do so will cause booting problems and errors with certain protocols.**

Overview To install a second network interface card (NIC) you must perform the following tasks:

1. Shut down the PC.
2. Install the second NIC. Do **not** connect the LAN cable.
3. Power-up the PC. Log in as ***Windows administrator***.
4. Windows automatically detects and installs the necessary drivers.
5. After the automatic installation is complete, check the NIC assignment.
6. Configure the second NIC.
7. Connect the LAN cable.

NIC Assignment

The assignment of the NICs (which is the first and which is the second NIC) depends on the situation when installing the Windows operating system:

A: the operating system is installed with both NICs
B: the operating system is installed with only the first NIC; the second NIC is added later.

Table 17-1 NIC Installation Types

PC Type	Installation Type	the first NIC is...	the second NIC is...
Kayak XA	A	...the NIC closer to the processor	...the NIC further away from the processor
	B	...the NIC further away from the processor	...the one closer to the processor
Kayak XU	A and B	...a combined network/ SCSI interface	...the other NIC
Vectra VL400 Vectra VL420	A	...the other NIC	...the onboard NIC
	B	...the onboard NIC	...the other NIC
LC 2000	A	...the other NIC	...the onboard NIC
	B	...the onboard NIC	...the other NIC
Compaq D510	A and B	...the onboard NIC	...the other NIC
HP Compaq D530	A and B	...the onboard NIC	...the other NIC
Compaq ProLiant ML370 G2	A	...the other NIC	...the onboard NIC
	B	...the onboard NIC	...the other NIC
HP ProLiant ML370 G3	A	...the onboard NIC	...the other NIC
	B	...the onboard NIC	...the other NIC
HP Proliant ML350 G4	A	...the onboard NIC	...the other NIC
	B	...the onboard NIC	...the other NIC
HP Compaq dc7100	A	...the onboard NIC	...the other NIC
	B	...the onboard NIC	...the other NIC
HP Compaq dc7600	A	...the onboard NIC	...the other NIC
	B	...the onboard NIC	...the other NIC
HP Proliant ML350 G4P	A	...the onboard NIC	...the other NIC
	B	...the onboard NIC	...the other NIC

A typical type A situation is reinstallation of the Windows operating system on a PC already equipped with two NICs.

A typical type B situation is installation of a second NIC as part of a system upgrade without reinstallation of Windows.

Caution: **Reinstallation or upgrade of a system with a second NIC may change NIC assignment.**

NIC Configuration for all PCs

You can access the properties of the network interface cards in ***Control Panel*** → **Network and Dial-up Connections**. The first network card that is used and pre-configured for the internal connection within an OB **TraceVue** system is normally named **Local Area Connection**. An additionally installed NIC is called **Local Area Connection 2**. Perform the following configuration steps for the additional NIC:

1. **Rename Network Connections**

   For better identification of the two network cards you should rename them in the **Network and Dial-up Connection** view.

   - **Local Area Connection** should be named **Internal Connection**.
   - **Local Area Connection 2** should be named **External Connection**.

2. **Label Network Interface Cards on PC Housing**

   For easier assignment of the NICs installed in the PC you should label the connector on the back of the PC according to table on 15-7.

   You can verify the correct labeling by connecting and disconnecting the NICs to the OB **TraceVue** network and view the status of the connection in the **Network and Dial-up Connection** view.

3. **Configure TCP/IP Protocol**

   Use or get TCP/IP configuration settings according to the following table. Please update the Installation Checklist for the PC according to the settings used.

Type of Hospital Network	TCP/IP Configuration
Hospital with own IP address range: Use hospital network infrastructure for connections.	Get the TCP/IP configuration settings from local IT department. It is recommended to use a static IP address for the second NIC.
A hospital without own IP address range wants to connect multiple OB **TraceVue** systems with OB **TraceVue** Link. Only external server PC has a second NIC. Use a dedicated switch to connect OB **TraceVue** systems.	Assign **IP address** to second NIC of external server as follows: 172.17.1.2 (first OB **TraceVue** system) 172.17.1.3 (second OB **TraceVue** system) 172.17.1.4 (third system....and so on.) **Subnet Mask**: 255.255.0.0 (all each systems) **Default Gateway**: not used

TCP/IP configuration is performed in **Network and Dial-up Connection** → ***<Name of External Connection>*** → **Properties** → **Internet Protocol (TCP/IP)** → **Properties**.

Note The first two components of the IP address for the second network card must not be identical to the first two components of the IP address for the first network card (the network address must be different). If the hospital assigned address starts with **172.16.** proceed to ***Setting up IP Addresses If Hospital Uses Same Address Range as OB TraceVue*** on page 17-25.

4. **Enable Network Connections**

   In the **Network and Dial-up Connection** view, select the connection and choose **Enable** from the file menu.

5. **Connect the second NIC to the hospital network.**

Caution: **When installing a second NIC in an internal server you must disable the DHCP server service on the second NIC (see below). This can only be done if the second NIC is connected to a network.**

To avoid network problems you should connect the second NIC temporarily

- **to the OB TraceVue network or**
- **to a Switch with no other network equipment connected**

until you have disabled the DHCP server.

If you connect the second NIC to the hospital network you must immediately disable DHCP to prevent external PCs from using addresses that are reserved for OB TraceVue.

Additional NIC Configuration for Internal Server Only

The following steps must be performed in addition to the steps in the previous chapter if you install a second NIC in an internal server.

1. **Disable DHCP for the second NIC**

   You must disable **DHCP** for the second NIC to prevent non OB **TraceVue** PCs from using addresses that are reserved for OB **TraceVue** usage. Hospital network devices may also malfunction if they obtain an IP address by an OB **TraceVue DHCP** server.

   To disable DHCP the second NIC must be connected to the LAN (see above).

   - Start ***Administrative Tools***.
   - Go to **DHCP**→ ***<PC Name [IP Addr]>*** → **Properties** → **Advanced** → **Bindings...** → ***<Name of External Connection>***.
   - Disable the checkbox.
   - Connect the second NIC to the hospital network.
   - Make sure the first NIC is connected to the OB **TraceVue** network.

2. **Run OB TraceVue Setup**

   Run OB **TraceVue** setup. For details refer to ***OB TraceVue Installation***.

   - Choose **Only change database settings or system settings** if OB **TraceVue** has already been installed on the server.
   - If Remote LAN clients are connected:
     - Select **Configure IP Addresses of Servers for Remote LAN Clients.**
     - Select/enter IP addresses of the external NIC for internal and external server PC.
     - Leave External Server IP address empty if there is no external server.
   - Supply the IP address of the internal network card when asked.

3. **Run OB TraceVue Setup on all other PCs equipped with two NICs.**

   You must run the setup to ensure that all other OB **TraceVue** PCs equipped with a second NIC use only the OB **TraceVue** network to communicate with the server.

   - Keep all settings when running setup.

Setting up IP Addresses If Hospital Uses Same Address Range as OB TraceVue

If the network address of both network cards would be the same (first two components of the IP address are identical), the network address of the OB **TraceVue** network must be changed to 172.18. This is done with the following steps:

1. Change IP Address of Internal Server
   Change the **IP address** of the first NIC (*"Internal Connection"*) to **172.18.0.2.** Subnet mask must be **255.255.0.0**.
2. Create New DHCP Scope at the Internal Server
   a. Start **DHCP** manager.
   b. Delete **Scope [172.16.0.0]**
   c. Create new scope with the following settings:

      Start Address: **172.18.0.3**
      End Address: **172.18.0.254**
      Subnet Mask: **255.255.0.0**
      Lease Duration: **14 days**.
3. Make sure that all PCs of the OB **TraceVue** network except the internal server are configured to use **DHCP** for their internal network card.
4. Restart the internal server, external server and all clients.

Note The internal NIC of the external server doesn't need to have a statically assign IP address (as with previously releases). You don't need to add a reservation for that PC within the DHCP manager.

NetBEUI

NetBEUI is required on the first NIC for client installation via LAN. It is not required on the second NIC but it is recommended to enable it as it acts like a diagnostic utility.

Enabling NetBEUI on the second NIC can cause network errors (duplicate hostname) if the OB **TraceVue** network is not totally separated from the hospital network.

In such a case it is not sufficient to disable NetBEUI on the second NIC. Check the network layout and remove the connection between the OB **TraceVue** network and the hospital network.

Light Pen

PXL 395 (ISA) If you have to manually reinstall the light pen driver:

1. Start **C:\DRIVERS\LPN395\setup.exe**
   The IRQ must match your system setting. (See the appropriate chapter for the type of PC for interrupt adjustments.)
2. After next reboot, you must calibrate the light pen.

PXL 595 (PCI) If you need to manually reinstall the light pen driver:

1. Start the ***Device Manager***.
2. Open **Mice and other pointing device**.
3. Double click **PCI Input Device** (marked with a yellow exclamation mark).
4. Select the tab **Driver**.
5. Click the **Update** button.
6. Select the driver from the local disks and specify the following directory:
   C:\DRIVERS\LPN595
7. Click **Yes** to accept the missing signature.
8. After next reboot, you must calibrate the light pen.

Additional RS-232 Interface Card (J02)

When installing a PC with ISA RS-232 I/F card, there is no need to install any additional driver. Windows 2000 detects those ports automatically without additional driver

A new PC with PCI RS-232 I/F card, requires the plug and play PCI RS-232 driver. This is installed automatically during Windows 2000 setup.

Manual procedure to install the driver:

When Windows 2000 detects a new hardware device, select the directory **C:\DRIVERS\SERIAL**. Windows 2000 automatically selects the required files and installs the device.

SCSI Host Adapter

Windows 2000 detects the new hardware automatically and installs the correct driver without user interaction.

Optical Medium Changers (Jukeboxes)

1. Connect the medium changer, turn the power on.
2. Power up / reboot the PC. Log in as ***Windows administrator***.
3. Open the ***Device Manager***.
4. Select **Medium Changers**.
5. Right-click **Unknown Medium Changer Device**, select **Properties**.
6. On the **Driver** page click **Update Driver...**
7. Click **Next** in first wizard page.
8. Select **Display a list of the known drivers for this device so that I can choose a specific driver**, click **Next**.
9. Select **Show all hardware of this device class**.
10. Select **HP** in the List of Manufacturers, then select **HP DLT and HP/Plasmon/Pinnacle Optical Medium Changers** from the Models list, click **Next**.
11. To continue the driver installation click **Yes** in the following dialog.
12. Click **Next** to start the device driver installation, click **Finish** to end the installation.
13. Close the properties box, close the device manager.

ELO Touchscreen

1. Start **C:\Drivers\Elotouch\setup.exe**
   - the setup runs unattended until calibration is necessary.
   - the display settings are changed automatically to 1280 x 1024 @ 60Hz
2. Hit the targets using the soft pen when requested.

UPS Software

The software is installed and configured automatically during the OB **TraceVue** Windows installation.

The software is not installed and configured on upgrade PCs; you must do this manually.

If you need to manually install the driver connect the UPS to the PC and follow the procedures below. See also ***UPS*** on page 12-18.

Smart Solution Installation (APC Smart-UPS 1000)

1. Connect the serial interface of the UPS to a free COM port of your PC and switch it on.
2. Execute the program **C:\Drivers\PCPlus52\setup.exe** and make the following selections:
   - Select **Continue with installation now.**
   - Select **Yes** to accept the software license agreement
   - Select **Typical** installation.
   - Select **Yes** to let the setup program select automatically the correct COM port.
   - Enable PowerChute plus remote monitoring
3. Copy the **.ini**[1] file either from the HDD (**C:\Drivers\PCPlus52**) or from the server CD (**H:\Drivers\PCPlus52**) to the directory **C:\Program files\PwrChute**.
4. Restart the computer to activate the PowerChute software.

Simple Solution Installation (APC Back-UPS / Smart-UPS 620/1000)

- Client PC only: run OB **TraceVue** setup to free up COM1.
- Open ***Control Panel***, select **Power Options**.
- Select the **UPS** tab, click the **Select...** button.
- Select **American Power Conversion** from the **Select manufacturer:** combo box.
- Model: Back UPS is connected: **Back-UPS**
  Smart UPS 620/1000 is connected: **Smart-UPS**
- Click **Finish**, click **Configure**…

  Settings:
  - **Enable all notifications**: unchecked
  - **Minutes on battery before critical alarm**: checked value: **8**
  - **When the alarm occurs, run this program**: unchecked
  - **Next, instruct the computer to**: **Shutdown**
  - Smart UPS 620/1000 only:
    Finally turn off the UPS: checked
- Commit the new settings.

---

1. Internal Server PC: **pwrchute.ini**
   High-end External Server PC: **pwrchut2.ini**
   High-end Web/Terminal Server PC: **pwrchut2.ini**

Hardware Configuration

SCSI HardDisks

HP Kayak XU:

- First Internal HD . . . . . SCSI ID: 0
- Second Internal HD . . . . . SCSI ID: 1

HP Kayak XA:

- First Internal HD . . . . . .IDE Disk, no SCSI ID necessary
- Second Internal HD . . . . . SCSI ID: 0

IDE HardDisks

HP Vectra VL400, HP Vectra VL420, Compaq Evo D510, HP Compaq D530:

IDE Bus 1

- First internal HD . . . . . .Device jumper: CS (cable select)
- Second internal HD . . . . . .Device jumper: CS (cable select)

IDE Bus 2

- CD-ROM Drive . . . . . .Device jumper: CS (cable select)
- Optional Tape backup . . . . . .Device jumper: CS (cable select)

SATA HardDisks

HP Compaq dc7100 and dc7600:

- SATA 0 Bus . . . . . .First internal hard disk
- SATA 1 Bus . . . . . Second internal hard disk

Primary IDE:

- CD-ROM Drive . . . . . .Device jumper: CS (cable select)
- Optional Tape backup . . . . . .Device jumper: CS (cable select)

Optical Disk Drives

SCSI IDs

- First Optical disk (Archive drive) . . . . . SCSI ID: 1
- Second Optical disk (Retrieve drive) . . . . . SCSI ID: 2

Access Mode

- 9.1 GB Drives (C1114M): . . . . . Mode 3 - Direct Access / Verify On

- 5.2 GB Drives (C1114J): . . . . . Mode 3 - Direct Access / Verify On

Optical Medium Changers

SCSI IDs

- Autochanger. . . . . SCSI ID 4
- Optical disk drive 1 . . . . . SCSI ID 5
- Optical disk drive 2 . . . . . SCSI ID 6

18
Upgrade Overview

Introduction

This chapter gives an overview of

- Hardware
  - Supported PC hardware.
  - Memory requirements and supported number of clients.
  - Free Disk Space Requirements
- Types of upgrades depending on the current hardware and software configuration.

Hardware

Supported PCs

The following table lists all supported OB **TraceVue** PC hardware.

- Existing PC's can be reused if the appropriate column is checked.
- For memory requirements and supported number of clients also refer to ***Memory Requirements*** on page 18-4.
- The type of upgrade required is described in ***Upgrade Types*** on page 18-8.

Table 18-1 Supported PCs for D.01.13

PC Hardware	Client	Server/ client with serial port server	Server PCs					
			Standard			Highend		
			Internal	External	WEB/Terminal Service	Internal	External	WEB/Terminal Service
Kayak XA	✓	-	✓	✓	-	-	-	-
Vectra VL400 Vectra VL420 Evo D510 D530 (M3167C, M3167D) dc7100 dc7600	✓	✓	✓	✓	✓	-	-	-
Kayak XU 6/400 Kayak XU 7/450 Kayak XU 7/500 LC 2000 RAID	-	-	-	-	-	✓	-	-
ML370 G2 ML370 G3 (M3168B, M3168C)	-	-	-	-	-	✓	✓	-
ML370 G3 (M3168D) ML350 G4 ML350 G4p	-	-	-	-	-	✓	✓	✓

UPS

Client PCs originally supplied for earlier versions of OB **TraceVue** may not include a client UPS. When upgrading to the current version of OB **TraceVue** a client UPS should be fitted.

Memory Requirements

This section describes the minimum memory required for OB **TraceVue**.

- Purchase required memory upgrades locally.
- You may have to discard existing memory.
- Use only memory upgrades that are tested and supported.

The requirements for upgrading the memory in a PC are:

- Total memory must be **at least** as specified in the table below.
- PC memory must be recognized at bootup with no errors.

Internal Server

This table shows the maximum number of clients, including WEB clients, and maximum number of fetal monitors per system. With systems using a serial port server, data acquisition is also permitted at the server.

Table 18-2 Server Memory, Clients, Fetal Monitors

PC Model	Memory (MB)	Max number Clients (including WEB) per system	External Server	Max number FM per system
Kayak XA	512	10	1	30
Kayak XU 6/400, 7/450, 7/500	512	40	1	40
Vectra VL400 Vectra VL420	512	20	1	30
if data acquisition is also on the internal server: Vectra VL400 Vectra VL420 Evo D510 D530 (M3167C)	512	3[1]	0	16
		2[1]	1	
D530 (M3167D) dc7100 dc7600	512	20	1	30
if data acquisition is also on the internal server: D530 (M3167D) dc7100 dc7600				16
LC 2000 with RAID ML370 G2 ML370 G3 (M3168B, M3168C)	512	60	1	60
ML370 G3 (M3168D) ML350 G4 ML350 G4p	2048	100	1	100

1. Three clients and no external server connected, or two clients and one external server connected.

External Servers

For increased performance, you may add memory. Total memory does not need to exceed 2GB.

Table 18-3 External Server Memory Requirements

PC Model	Min. Memory (MB)	Max. Memory (GB)[1]	External DB Size Limit
Kayak XA	512	0.75	2 GB[2]
Vectra VL400	512	0.5	-
Vectra VL420	512	1.5	-
Evo D510	512	2	-
D530 dc7100 dc7600	1024	4	-
ProLiant ML370 G2	512	6	-
ProLiant ML350 G4	2048	8	-
ProLiant ML370 G3 ProLiant ML350 G4p	2048	12	-

1. Windows 2000 Professional and Server support up to 4GB memory only.
2. Due to performance limitations the external database must not exceed 2 GB on this PC. The upgrade process requires the external DB not to exceed 1 GB if the Kayak XA has a 4 GB disk.

WEB/Terminal Servers

Table 18-4 WEB/Terminal Server Memory Requirements

PC Model	Memory (MB)	Web Clients	FM
Vectra VL400	512	6	-
Vectra VL420 Evo D510 D530 (M3167C)	1024	12	-
D530 (M3167D) dc7100 dc7600	2048	20[1]	-
ML370 G3 ML 350 G4 ML370 G4p	4096	50[2]	-

1. Restriction: 5 if MS Office printing is enabled
2. Restriction: 10 if MS Office printing is enabled

Clients

Table 18-5 Client Memory Requirements

PC Model	Memory (MB)	FM[1] RS-232	FM[2] Serial Port Server
Kayak XA	256	4	-
Vectra VL400 VL420 Evo D510 D530 dc7100			16
dc7600	512	4	16

1. Maximum number of Fetal Monitors per client PC (connected to client PC via RS-232).
2. Maximum number of Fetal Monitors per client PC (connected to a serial port server hosted by the client PC).

Free Disk Space (Internal Server and External Server PC only)

Free Disk Space Prior to upgrading (and after offline backup), the free disk space must be **1.5 * the size** of the database file on the internal server PC and the external server PC.

If the free disk space is not sufficient you must

- install a new hard disk with higher capacity or
- free disk space by deleting unused files

To check the size of the database file browse to

- **`c:\tv2\db\tracevue.db`** (internal server PC)
- **`c:\tv2\extdb\obtv_ext.db`** (external server PC)

Upgrade Types

Depending on the existing hardware and software configurations and the required number of clients different types of upgrades must be performed:

Software Upgrade

- The software version is A.02.00, A.02.10, B.00.00, B.01.00, C.00.00, C.01.00, C.01.01, D.00.00, D.00.01, D.00.02, D.01.00, D.01.10 or D.01.11.
- The existing hardware is supported by the current release of OB **TraceVue**.

Refer to Chapter 19, ***Software Upgrades***.

Hardware Upgrade

- The software version is D.01.13.
- The existing hardware must be upgraded due to performance reasons or the required number of clients.

Refer to Chapter 20, ***Hardware Upgrades***.

Software and Hardware Upgrade

- The software version is A.02.00, A.02.10, B.00.00, B.01.00, C.00.00, C.01.00, C.01.01, D.00.00, D.00.01, D.00.02, D.01.00, D.01.10, or D.01.11.
- Existing hardware is not supported by this OB **TraceVue** version or must be upgraded due to performance reasons or the required number of clients.

Refer to Chapter 20, ***Hardware Upgrades***.

System Upgrade

- The software version is D.01.13.
- The system must be upgraded (archiving, standalone to server, adding PCs or Web client licenses, adding a spare server).

Refer to Chapter 21, ***System Upgrades***.

19 Software Upgrades

Introduction

This chapter describes how to upgrade OB **TraceVue** to the latest software version:

- ***Upgrading From A.01.64 (Windows NT 3.51)*** on page 19-3
- ***Upgrading from A.02.00 (Windows NT 4)*** on page 19-3
- ***Upgrading from A.02.10 or Higher (Windows NT 4)*** on page 19-4
- ***Upgrading from B.01.00 (Windows 2000)*** on page 19-8
- ***Upgrading from C.00.00, C.01.00, and C.01.01*** on page 19-12
- ***Upgrading from D.00.00*** on page 19-17
- ***Upgrading from D.00.01, D.00.02, D.01.00, D.01.10, and D.01.11*** on page 19-21
- ***Upgrading Word and Excel Templates*** on page 19-24

Caution: **When you upgrade your version of OB TraceVue, you must follow through each of these sections in chronological order to ensure that data is not lost.**

Prerequisites (All Upgrades)

- Make sure that the PCs you want to upgrade
  - are supported by OB **TraceVue**; see ***Supported PCs*** on page 18-2
  - meet the memory requirements; see ***Memory Requirements*** on page 18-4
  - meet the free disk space requirements; see ***Free Disk Space (Internal Server and External Server PC only)*** on page 18-7
- Make sure that the network topology and cabling meets the requirements. See ***Network Specifications*** on page 6-9 and ***Cable Specifications*** on page 6-11.
- Consider network security issues. See Task 39: ***Network Security*** on page 5-28.
- Upgrading from OB **TraceVue** C.01.01 or earlier:

  Rename existing Philips user:

  OB **TraceVue** only upgrades the **Agilent** user to **Philips** if no existing **Philips** user exists in the system to be upgraded. If a **Philips** user exists rename him/her for example by adding the first name.
- Uninstall MS Office (versions prior to Office 2003).

Final Steps (All Upgrades)

After you have upgraded to a new version of OB **TraceVue** make sure that you

All PCs

Check / Adjust Page File Size

1. See
   - ***Server Automatic Configuration***, ***Virtual Memory*** on page 17-10
   - ***External Database Server Automatic Configuration***, ***Virtual Memory*** on page 17-12
   - ***WEB/Terminal Server Automatic Configuration***, ***Virtual Memory*** on page 17-13
   - ***Client Automatic Configuration***, ***Virtual Memory*** on page 17-14
2. Start ***Virtual Memory***, adjust the page file size if necessary.

Install MS Office (option)

See ***Installing Microsoft Office 2003*** on page 6-50.

Print out Installation Record

See Task 41: ***Print out PC Installation Record*** on page 5-29.

Internal Server PC only

- upgrade Word and Excel templates (option, see ***Upgrading Word and Excel Templates*** on page 19-24)
- print and backup the configuration record (see Task 40: ***Print and Back-Up Configuration Record*** on page 5-29)

External Server PC only

- make a backup of the external database (see ***System Administration and Configuration Guide***)
- remove the original (pre-upgrade) external database
  `c:\tv2\extdb_<date>_<time>\obtv_ext.db`

  Caution: If the external database was modified through third party integration, the original external database file must be handled appropriately.

  See ***Integration Guide*** for details.

Upgrading From A.01.64 (Windows NT 3.51)

OB **TraceVue** cannot be upgraded from A.01.64. You must install a new system and then retrieve data from optical disks (see ***Retrieve from Optical Disk (RFO Wizard)*** on page 15-28).

Upgrading from A.02.00 (Windows NT 4)

This covers OB **TraceVue** A.02.00 running under **Windows NT 4**.

OB **TraceVue** cannot be upgraded from A.02.00 directly. You must first upgrade the software to A.02.10.

A.02.00 was replaced by A.02.10 in a worldwide mandatory upgrade. However, if you are working with a system that was not upgraded, you **must** upgrade to A.02.10 before starting the upgrade process.

- Upgrade the software according to the ***Installation and Service Manual*** for that version.
- Continue with ***Upgrading from A.02.10 or Higher (Windows NT 4)*** on page 19-4.

Upgrading from A.02.10 or Higher (Windows NT 4)

This covers OB **TraceVue** A.02.10, B.00.00 and B.01.00 running under **Windows NT 4**.

Prerequisite

Upgrading from A.02.10 requires upgrading the operating system from Windows NT 4 to Windows 2000. A minimum of 1.5 GB of free disk space is required on drive C for the upgrade. The installation procedure checks this and will not start if there is not enough space.

Overview

The upgrade procedure consists of three steps:

1. Upgrade from Windows NT 4.0 to Windows 2000 on the internal server/standalone and external server PC.
2. Upgrade the OB **TraceVue** software on the internal server or standalone.
3. Upgrade the OB **TraceVue** software on the external server.
4. Upgrade OB **TraceVue** clients.

Preparations

The following are pre-requisites before you begin the upgrade.

Preparing the PC

- Ensure that the customer has backup copies of documents and files created by third party applications.
- Uninstall all third party software, including Microsoft Office. Don't forget to reinstall it after the upgrade.
- Check the network configuration. Write down the TCP/IP settings (of both network adapters if installed) and the DHCP server settings (address range).

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***System Administration and Configuration Guide*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Upgrading to Windows 2000 (Server/Standalone and External Server)

1. Stop the OB **TraceVue** database server process:
   a. Start ***Sybase Central***.
   b. Select **Services**, then select the appropriate database service:
      - **OBTV_DB_SERVER** (internal server/standalone) or
      - **OBTV_EXTDB_SERVER** (external server).
   c. Open the **File** menu and click **Stop**.
   d. Select **Services**, then select the database service again.
   e. Open the **File** menu and click **Properties**.
   f. Check **Startup: Manual**, click **OK**.
2. **Remove any optical media from the drives otherwise the installation procedure may hang**.

Note The optical disk drive must be switched on during the upgrade process.

---

3. Start from **server** CD-ROM:
   `H:\Upgrade\Upgrade.cmd` (the drive letter `H` is mandatory) and follow the instructions in the command prompt window. In case of problems refer to ***Troubleshooting Windows 2000 Installation*** on page 17-19.
4. When the Windows 2000 installation procedure has finished you must install OB **TraceVue** manually.

Upgrading the Server/Standalone Software

Install OB TraceVue

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - If you want to change the system language, choose **Define System Language.**
   - To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.
2. Click **Finish** to reboot the PC.

Final Steps

1. Apply available OB **TraceVue** service packs for this revision.
2. Start OB **TraceVue**, backup the internal database.
3. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
4. Start OB **TraceVue**, backup the internal database, backup the configuration.
5. Make sure to set the external database ***Automatic Purge*** time (see page 8-5).

Upgrading the External Server Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. If prompted: **Keep the existing external database**.

Final Steps

- After setup has finished successfully:
  a. Click **Finish** to reboot the PC.
  b. Apply available OB **TraceVue** service packs for this revision.
  c. Start the ***Database Rebuild Tool***.
  d. Start OB **TraceVue**, backup the external database.

- If the setup **failed** after the upgrade of the external database:
  a. Reboot the PC.
  b. Restore the external database from the tape backup.
  c. Retry the upgrade with step 1.

Upgrading the Client Software

Note: You cannot upgrade the operating system on OB **TraceVue** clients. You must make a complete, new, installation. Ensure that the customer saves data and files from third party applications.

Installing the Operating System

See Chapter 17, ***Windows 2000 Installation***, ***Client Setup*** on page 17-7.

Installing the OB TraceVue Client Software

If you did not install OB **TraceVue** automatically:

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. After setup has finished click **Finish** to reboot the PC.
6. Apply available OB **TraceVue** service packs for this revision.

See also *Chapter 16, **OB TraceVue Installation***.

Upgrading from B.01.00 (Windows 2000)

This covers OB **TraceVue** B.01.00 running under **Windows 2000**.

The complete installation and setup process for OB **TraceVue** software is described in *Chapter 16, **OB TraceVue Installation***.

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***Instructions for Use*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Remove Management Agents (LC2000 only)

1. Open ***Control Panel*** → **Add/Remove Programs**.
2. Remove: **HP Net Server Agents**
   Instant Top Tools
   NetRaid Assistant package

   When asked for removing shared files answer **Yes to All.**

Remove IIS (Internal and External Server PC only)

1. Open ***Control Panel*** → **Add/Remove Programs**.
2. Select **Add/Remove Windows Components**.
3. Uninstall **Internet Information Services (IIS)**.

Upgrading Windows 2000 (all PC Types)

1. Install Windows 2000 Service Pack (if not already installed).

   Start from **client** CD-ROM (at **all** PCs):

   - **`H:\w2poem\sp4\apply.cmd`** (Windows 2000 service pack)

   The PC restarts automatically when finished.

2. Check the PC's BIOS and the RAID BIOS (if available) and update if required.

3. Start from **server** CD-ROM:

   `H:\Upgrade\<pc>\Upgrade.cmd` and follow the instructions in the command prompt window.

   Do not click in any windows opened by **`Upgrade.cmd`**. They will close automatically. However, if the dialog "driver is not digitally signed" remains on screen for more than 30 seconds, click **Yes** to install it.

4. Restart the PC.

Upgrading Windows 2000 (Additional on External Server only)

1. Set the TCP/IP configuration of the internal NIC to DHCP.

Upgrading the Server/Standalone Software

Change Licensing Mode

1. Open ***Control Panel*** → **Licensing**.
2. In the **Licensing Mode** dialog select **Per Seat**.

Install OB TraceVue

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - If you want to change the system language, choose **Define System Language.**
2. Click **Finish** to reboot the PC.

Final Steps

1. Apply available OB **TraceVue** service packs for this revision.
2. Start OB **TraceVue**, backup the internal database.
3. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
4. Start OB **TraceVue**, backup the internal database, backup the configuration.
5. Make sure to set the external database ***Automatic Purge*** time (see page 8-5).
6. To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.

Upgrading the External Server Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. If prompted: **Keep the existing external database**.

Final Steps

- After setup has finished successfully:
  a. Click **Finish** to reboot the PC.
  b. Apply available OB **TraceVue** service packs for this revision.
  c. Start the ***Database Rebuild Tool***.
  d. Start OB **TraceVue**, backup the external database.
- If the setup **failed** after the upgrade of the external database:
  a. Reboot the PC.
  b. Restore the external database from the tape backup.
  c. Retry the upgrade with step 1.

Upgrading the Client Software

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. After setup has finished click **Finish** to reboot the PC.
6. Apply available OB **TraceVue** service packs for this revision.

See also *Chapter 16, **OB TraceVue Installation***.

Upgrading from C.00.00, C.01.00, and C.01.01

This covers OB **TraceVue** C.00.00, C.01.00, and C.01.01 running under **Windows 2000**.

The complete installation and setup process for OB **TraceVue** software is described in *Chapter 16, **OB TraceVue Installation***.

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***Instructions for Use*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Note Serial Port Servers should be switched on and connected to the network while upgrading.

Remove Management Agents (LC 2000 and ML370 G2/G3 only)

(HP NetServer LC2000 / LC2000 U3)[1]

1. Open ***Control Panel*** → **Add/Remove Programs**.
2. Remove: **HP Net Server Agents**
   Instant Top Tools
   NetRaid Assistant package

   When asked for removing shared files answer **Yes to All**.

HP / Compaq ProLiant ML370[2]

1. Open ***Control Panel*** → **Add/Remove Programs**.
2. Remove: **HP / Compaq Management Agents**

   When asked for removing shared files answer **Yes to All**.

Remove IIS (Internal and External Server PC only)

1. Open ***Control Panel*** → **Add/Remove Programs**.
2. Select **Add/Remove Windows Components**.
3. Uninstall **Internet Information Services (IIS)**.

1. New versions are installed automatically
2. The ProLiant Support Pack 7.00A is installed automatically. Currently the management agents are excluded due to operating system incompatibilities.

Upgrading Windows 2000 (all PCs)

1. *Log On As Windows Administrator*.
2. Install Windows 2000 Service Pack (if not already installed).

   Start from **client** CD-ROM (at **all** PCs):

   - `H:\w2poem\sp4\apply.cmd` (Windows 2000 service pack)

   The PC restarts automatically when finished.
3. Check the PC's BIOS and update if required.
4. Check the RAID BIOS (if available).
5. For all PCs except ML 370 G2, update the RAID BIOS if required.

Caution: **For ML 370 G2 PCs, if it is necessary to update the RAID BIOS, do it only after performing the next step.**

---

6. Start from **server** CD-ROM:

   `H:\Upgrade\<pc>\Upgrade.cmd` and follow the instructions in the command prompt window.

   Do not click in any windows opened by `Upgrade.cmd`. They will close automatically. However, if the dialog "driver is not digitally signed" remains on screen for more than 30 seconds, click **Yes** to install it.
7. ML 370 only: update the RAID BIOS if necessary.
8. Restart the PC.

Upgrading the Server/Standalone Software

Change Licensing Mode

1. Open *Control Panel* → **Licensing**.
2. In the **Licensing Mode** dialog select **Per Seat**.

Install OB TraceVue

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - If you want to change the system language, choose **Define System Language.**
2. Click **Finish** to reboot the PC.

Final Steps

1. Apply available OB **TraceVue** service packs for this revision.
2. Start OB **TraceVue**, backup the internal database.
3. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
4. Start OB **TraceVue**, backup the internal database, backup the configuration.
5. Make sure to set the external database ***Automatic Purge*** time (see page 8-5).
6. To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.

Upgrading the WEB/Terminal Server Software

Change Licensing Mode

1. Open ***Control Panel*** → **Licensing**.
2. In the **Licensing Mode** dialog select **Per Seat**.

Install OB TraceVue

Note You must install the OB **TraceVue** software using **Add/Remove Programs**.
Do **not** use the Explorer to start **setup.exe**.

See also *Chapter 16, **OB TraceVue Installation***.

1. In the ***Control Panel***, start **Add/Remove Programs**.
2. Select **Add New Programs**, click the button labeled **CD or Floppy**.
3. Open **\\<*server name*>\server\tv2\setup\setup.exe**.
   - Select **Install the OB TraceVue Software**.
   - Select **Network Client PC**.
   - Do **not** change any settings.
4. Reboot the WEB/Terminal Server.

Upgrade WEB Pages

1. Start from server CD-ROM: `H:\Upgrade\TerminalServer\Upgrade.cmd`. Enter the name of the language pack for the language you want to install.
2. Start an OB **TraceVue** WEB client. See ***Check WEB/Terminal Server*** on page 2-8.

Upgrading the External Server Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. If prompted: **Keep the existing external database**.

Final Steps

- After setup has finished successfully:
  a. Click **Finish** to reboot the PC.
  b. Apply available OB **TraceVue** service packs for this revision.
  c. Start the ***Database Rebuild Tool***.
  d. Start OB **TraceVue**, backup the external database.
- If the setup **failed** after the upgrade of the external database:
  a. Reboot the PC.
  b. Restore the external database from the tape backup.
  c. Retry the upgrade with step 1.

Upgrading the Client Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. After setup has finished click **Finish** to reboot the PC.
6. Apply available OB **TraceVue** service packs for this revision.

See also *Chapter 16, **OB TraceVue Installation***.

Upgrading from D.00.00

This covers OB **TraceVue** D.00.00 running under **Windows 2000**.

The complete installation and setup process for OB **TraceVue** software is described in *Chapter 16, **OB TraceVue Installation***.

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***Instructions for Use*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Note Serial Port Servers should be switched on and connected to the network while upgrading.

Upgrading Windows 2000 (all PCs)

1. Install Windows 2000 Service Pack (if not already installed).

   Start from **client** CD-ROM (at **all** PCs):

   - `H:\w2poem\sp4\apply.cmd` (Windows 2000 service pack)

   The PC restarts automatically when finished.
2. Check the PC's BIOS and update if required.
3. Check the RAID BIOS (if available).
4. For all PCs except ML 370 G2, update the RAID BIOS if required.

Caution: **For ML 370 G2 PCs, if it is necessary to update the RAID BIOS, do it only after performing the next step.**

5. Start from **server** CD-ROM:

   `H:\Upgrade\<pc>\Upgrade.cmd` and follow the instructions in the command prompt window.

   Do not click in any windows opened by `Upgrade.cmd`. They will close automatically. However, if the dialog "driver is not digitally signed" remains on screen for more than 30 seconds, click **Yes** to install it.
6. Restart the PC.

Upgrading the Server/Standalone Software

Install OB TraceVue

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - If you want to change the system language, choose **Define System Language.**
2. Click **Finish** to reboot the PC.

Final Steps

1. Apply available OB **TraceVue** service packs for this revision.
2. Start OB **TraceVue**, backup the internal database.
3. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
4. Start OB **TraceVue**, backup the internal database, backup the configuration.
5. Make sure to set the external database ***Automatic Purge*** time (see page 8-5)
6. To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.

Upgrading the WEB/Terminal Server Software

Install OB TraceVue

Note You must install the OB **TraceVue** software using **Add/Remove Programs**.
Do **not** use the Explorer to start **setup.exe**.

See also *Chapter 16, **OB TraceVue Installation***.

1. In the ***Control Panel***, start **Add/Remove Programs**.
2. Select **Add New Programs**, click the button labeled **CD or Floppy**.
3. Open **\\<*server name*>\server\tv2\setup\setup.exe**.
   - Select **Install the OB TraceVue Software**.
   - Select **Network Client PC**.
   - Do **not** change any settings.
4. Reboot the WEB/Terminal Server.

Final Step Apply available OB **TraceVue** service packs for this revision.

1. Start from server CD-ROM: **`H:\Upgrade\TerminalServer\Upgrade.cmd.`** Enter the name of the language pack for the language you want to install.
2. Start an OB **TraceVue** WEB client. See ***Check WEB/Terminal Server*** on page 2-8.

Upgrading the External Server Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. If prompted: **Keep the existing external database**.

Final Steps

- After setup has finished successfully:
  a. Click **Finish** to reboot the PC.
  b. Apply available OB **TraceVue** service packs for this revision.
  c. Start the ***Database Rebuild Tool***.
  d. Start OB **TraceVue**, backup the external database.
- If the setup **failed** after the upgrade of the external database:
  a. Reboot the PC.
  b. Restore the external database from the tape backup.
  c. Retry the upgrade with step 1.

Upgrading the Client Software

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. After setup has finished click **Finish** to reboot the PC.
6. Apply available OB **TraceVue** service packs for this revision.

See also *Chapter 16, **OB TraceVue Installation***.

Upgrading from D.00.01, D.00.02, D.01.00, D.01.10, and D.01.11

This covers OB **TraceVue** D.00.01, D.00.02, D.01.00, D.01.10, and D.01.11 running under **Windows 2000**.

The complete installation and setup process for OB **TraceVue** software is described in *Chapter 16, **OB TraceVue Installation***.

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***Instructions for Use*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Note Serial Port Servers should be switched on and connected to the network while upgrading.

Upgrading Windows 2000 (all PCs)

1. Check the PC's BIOS and update if required.
2. Check the RAID BIOS (if available).
3. For all PCs except ML 370 G2, update the RAID BIOS if required.

Caution: **For ML 370 G2 PCs, if it is necessary to update the RAID BIOS, do it only after performing the next step.**

4. Start from **server** CD-ROM:

   `H:\Upgrade\<pc>\Upgrade.cmd` and follow the instructions in the command prompt window.

   Do not click in any windows opened by `Upgrade.cmd`. They will close automatically. However, if the dialog "driver is not digitally signed" remains on screen for more than 30 seconds, click **Yes** to install it.

5. Restart the PC.

Upgrading the Server/Standalone Software

Install OB TraceVue

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - Uncheck all check boxes in order to not change any settings.
   - If you want to change the system language, choose **Define System Language.**
2. Click **Finish** to reboot the PC, or reboot manually.

Final Steps

1. Apply available OB **TraceVue** service packs for this revision.
2. Start OB **TraceVue**, backup the internal database.
3. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
4. Start OB **TraceVue**, backup the internal database, backup the configuration.
5. Make sure to set the external database ***Automatic Purge*** time (see page 8-5).
6. To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.

Upgrading the WEB/Terminal Server Software

Install OB TraceVue

Note You must install the OB **TraceVue** software using **Add/Remove Programs**.
Do **not** use the Explorer to start **setup.exe**.

See also *Chapter 16, **OB TraceVue Installation***.

1. In the ***Control Panel***, start **Add/Remove Programs**.
2. Select **Add New Programs**, click the button labeled **CD or Floppy**.
3. Open **\\<*server name*>\server\tv2\setup\setup.exe**.
   - Select **Install the OB TraceVue Software**.
   - Select **Network Client PC**.
   - Do **not** change any settings.
4. Reboot the WEB/Terminal Server.

Final Step Apply available OB **TraceVue** service packs for this revision.

Upgrading the External Server Software

Install OB TraceVue

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. If prompted: **Keep the existing external database**.

Final Steps

- After setup has finished successfully:
  a. Click **Finish** to reboot the PC or reboot manually.
  b. Apply available OB **TraceVue** service packs for this revision.
  c. Start OB **TraceVue**, backup the external database.
- If the setup **failed** after the upgrade of the external database:
  a. Reboot the PC.
  b. Restore the external database from the tape backup.
  c. Retry the upgrade with step 1.

Upgrading the Client Software

1. Start the OB **TraceVue** setup from the internal server share:
   Go to **Start** → **Run**. Type **\\<*server name*>\server\tv2\setup\setup.exe**.
2. Select **Install the OB TraceVue Software**.
3. Select **Network Client PC**.
4. Do **not** change any settings.
5. After setup has finished click **Finish** to reboot the PC, or reboot manually.
6. Apply available OB **TraceVue** service packs for this revision.

See also *Chapter 16, **OB TraceVue Installation***.

Upgrading Word and Excel Templates

Prerequisites

- OB **TraceVue** must be installed with the External Database option.
- Microsoft Office 2003 must be installed on the OB **TraceVue** PC, refer to ***Installing Microsoft Office 2003*** on page 6-50.
- You must be able to access the templates share (**<*server*>\OBTVTemplates**).

Upgrading Customized Templates

When you upgrade templates, any customization the customer may have made to the template styles (such as paragraph style, character style, paragraph formatting and so forth) will need to be reapplied. This is the customer's responsibility.

OB TraceVue Software Revision Upgrade

When you upgrade OB **TraceVue** to revision D.01.13 the existing templates are backed up in a directory **C:\Tv2_Templates.xxx** (where **xxx** is an incrementing number for each new installation).

New templates are installed in **C:\Tv2_Templates.** This directory is shared as **<server>\OBTVTemplates.**

If the hospital already has customized Word or Excel templates **only** the **customized** templates (excluding Excel templates included with OB **TraceVue** Rev. A) may be upgraded to D.01.13. You can also upgrade templates which were customized on another OB **TraceVue** system.

Follow the ***Template Upgrade Procedure*** on page 19-25.

You may also copy **new** templates from **C:\Tv2_Templates\factory** to **C:\Tv2_Templates\customer**.

For details see ***Installing Word and Excel Templates*** on page 6-53.

Factory Template Revision Upgrade

The template revision (including package revision) is not necessarily dependent on the OB **TraceVue** software revisions. If new templates become available, for download via Softserver, you can install them without having to re-install OB **TraceVue**.

Follow the ***Template Upgrade Procedure*** on page 19-25.

Template Upgrade Procedure

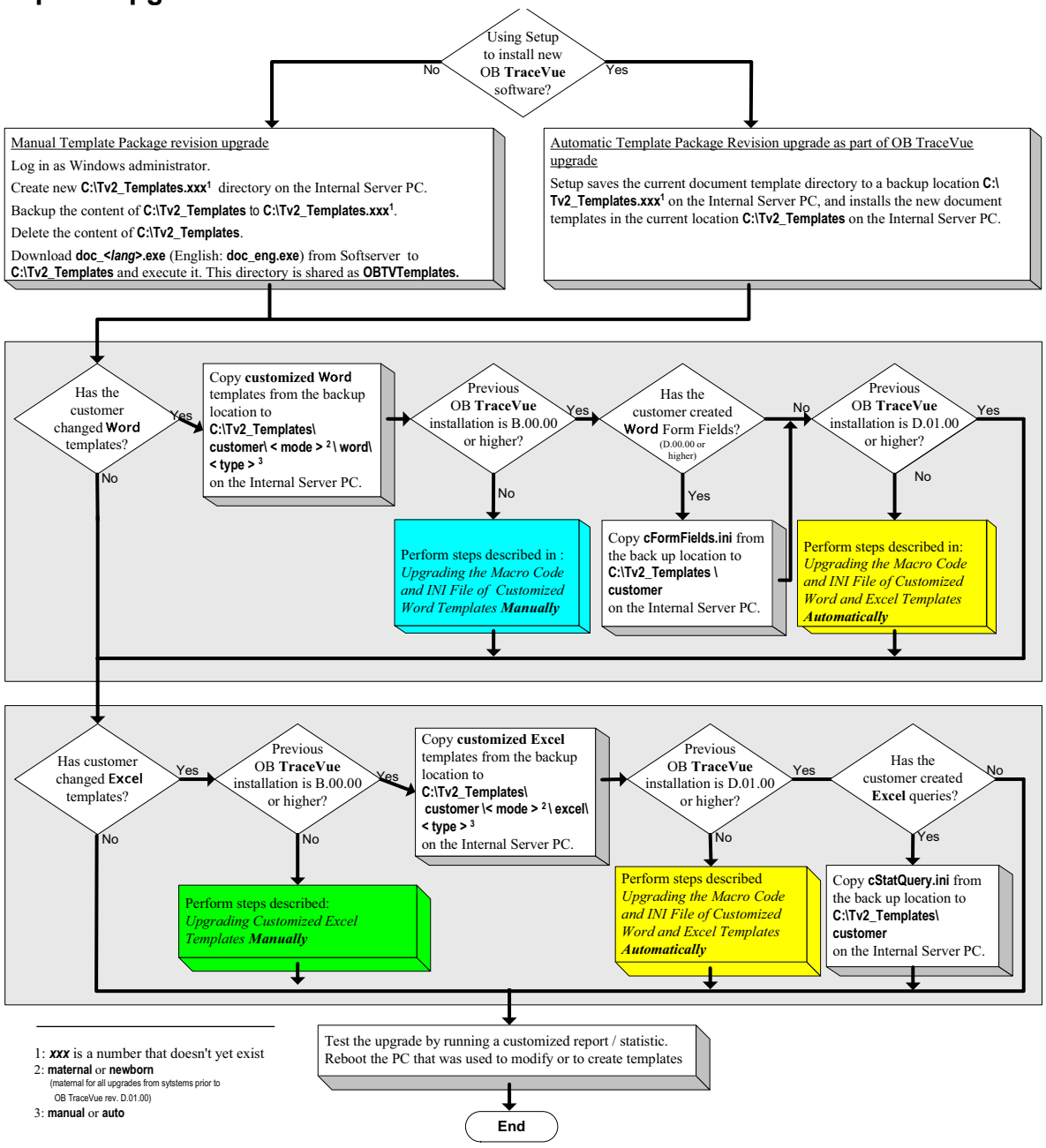

Using Setup to install new OB TraceVue software?
No
Yes
Manual Template Package revision upgrade
Log in as Windows administrator.
Create new C:\Tv2_Templates.xxx[1] directory on the Internal Server PC.
Backup the content of C:\Tv2_Templates to C:\Tv2_Templates.xxx[1].
Delete the content of C:\Tv2_Templates.
Download doc_<lang>.exe (English: doc_eng.exe) from Softserver to C:\Tv2_Templates and execute it. This directory is shared as OBTVTemplates.
Automatic Template Package Revision upgrade as part of OB TraceVue upgrade
Setup saves the current document template directory to a backup location C:\Tv2_Templates.xxx[1] on the Internal Server PC, and installs the new document templates in the current location C:\Tv2_Templates on the Internal Server PC.
Has the customer changed Word templates?
Yes
No
Copy customized Word templates from the backup location to C:\Tv2_Templates\customer\< mode >[2]\word\< type >[3] on the Internal Server PC.
Previous OB TraceVue installation is B.00.00 or higher?
Yes
No
Has the customer created Word Form Fields? (D.00.00 or higher)
Yes
No
Copy cFormFields.ini from the back up location to C:\Tv2_Templates \customer on the Internal Server PC.
Previous OB TraceVue installation is D.01.00 or higher?
Yes
No
Perform steps described in : Upgrading the Macro Code and INI File of Customized Word Templates Manually
Perform steps described in: Upgrading the Macro Code and INI File of Customized Word and Excel Templates Automatically
Has customer changed Excel templates?
Yes
No
Previous OB TraceVue installation is B.00.00 or higher?
Yes
No
Copy customized Excel templates from the backup location to C:\Tv2_Templates\customer\< mode >[2]\excel\< type >[3] on the Internal Server PC.
Previous OB TraceVue installation is D.01.00 or higher?
Yes
No
Has the customer created Excel queries?
No
Yes
Perform steps described: Upgrading Customized Excel Templates Manually
Perform steps described Upgrading the Macro Code and INI File of Customized Word and Excel Templates Automatically
Copy cStatQuery.ini from the back up location to C:\Tv2_Templates\customer on the Internal Server PC.
1: xxx is a number that doesn't yet exist
2: maternal or newborn
(maternal for all upgrades from sytstems prior to OB TraceVue rev. D.01.00)
3: manual or auto
Test the upgrade by running a customized report / statistic.
Reboot the PC that was used to modify or to create templates
End

Figure 19-1 How to upgrade Word and Excel Templates

Upgrading the Macro Code and INI File of Customized Word and Excel Templates Automatically

The following single procedure automatically upgrades both Word and Excel templates for all software revisions from **B.00.00 through D.00.02.**

For versions prior to B.00.00 you must perform the manual updates described in ***Upgrading the Macro Code and INI File of Customized Word Templates Manually*** on page 19-26 and ***Upgrading Customized Excel Templates Manually*** on page 19-27.

1. Use the flow chart shown in ***Template Upgrade Procedure*** on page 19-25 to determine which upgrade procedure to follow. This procedure is the yellow colored box.
2. Shut down OB **TraceVue** at the external database PC.
3. Log in as Windows administrator.
4. Start Word and check that the macro security is set to low. See ***Set Macro Security*** (see page 6-52).
5. Start **Update Document Templates** on the external server PC. (**Start → Programs → OB TraceVue Support**).

   Verify that no error messages appear. If no errors occur, the automatic upgrade has been successful. If errors occur you must update the templates manually. See ***Upgrading the Macro Code and INI File of Customized Word Templates Manually*** on page 19-26 and ***Upgrading Customized Excel Templates Manually*** on page 19-27
6. Verify that any customization to the template's paragraph and character styles, formatting and so forth is preserved. Update it if necessary.
7. Update the SQL statements of customized queries manually. See the ***System Administration and Configuration Guide*** for instructions.

Upgrading the Macro Code and INI File of Customized Word Templates Manually

The following procedure lets you manually upgrade the macro code and ini file of customized Word templates. Use it:

- **if errors occur during the automatic upgrade procedure.**
- **for software versions prior to B.00.00.**

1. Use the flow chart shown in ***Template Upgrade Procedure*** on page 19-25 to determine which upgrade procedure to follow. This procedure is the cyan colored box.
2. Login as ***Windows administrator*** on the external server PC or on any other PC with MS-Office installed. Do not start OB **TraceVue**.
3. Connect to the **Internal Server PC**, select the customized file (for example, **\\<*server*>\OBTVTemplates\customer\maternal\word\manual\MyTemplate.dot**).
4. Remove the **Read-Only** attribute, then open the file.
5. Select the contents of the template and copy the selection to the clipboard.

6. Open **\\<*server*>\OBTVTemplates\factory\maternal\word\TVReportM.dot** as a template. (Within Word use **File → Open.**)
7. Paste the contents of the clipboard to the empty template.

   Note: the template you wish to copy must be open during paste to preserve page header/footer and other formatting information.
8. Close the original template.
9. Overwrite the original template with the newly created template (TVReportM.dot).

   (for example **\\<*server*>\OBTVTemplates\customer\maternal\word\manual\MyTemplate.dot)**
10. Close the updated file (**File → Close**).
11. Re-apply the **Read-Only** attribute.
12. Perform this step, updating the customized form field file, if you are manually upgrading from software revision D.00.xx for a customer who already has customized form fields. Otherwise, skip to the next step.

    Updating the customized form field file shifts the contents of two columns (Mode and Description) to the next columns (Description and SQL) allowing the manual insertion of the 'mode' content.

    a. Open **\\<server>\OBTVTemplates\code\SQLedit.xls**
    b. Click tab **Report Form Fields (customized)**.
    c. Select the whole customized range.
    d. Select a cell below (outside of) the customized range.
    e. In the red range select all cells in columns **"Mode"** and **"Description"**.
    f. Cut the selected range and paste it into columns **"Description"** and **"SQL"** within the same row range.
    g. Enter **"M"** (capital) in column **Mode** for each customized form field.
    h. Save the Workbook.
13. Update the SQL statements of customized queries manually. See the ***System Administration and Configuration Guide*** for instructions.

Upgrading Customized Excel Templates Manually

The following procedure lets you manually upgrade the customized Excel templates. Use it:

- **if errors occur during the automatic upgrade procedure.**
- **for software versions prior to B.00.00.**

1. Use the flow chart shown in ***Template Upgrade Procedure*** on page 19-25 to determine which upgrade procedure to follow. This procedure is the green colored box.
2. Login as ***Windows administrator*** on the external server PC or on any other PC with MS-Office installed. Do not start OB **TraceVue**.

3. Connect to the **Internal Server PC**, create the directory **\\<*server*>\OBTVTemplates\customer\maternal\excel\temp**.
4. Copy ***.xlt** from **\\<server\OBTVTemplates\factory\maternal\excel\manual** to **\\<server\OBTVTemplates\factory\maternal\excel\temp**.
5. Re-customize the Excel templates in the folder **\\<server\OBTVTemplates\customer\maternal\excel\temp**.
6. Update the SQL statements of customized queries manually. See the ***System Administration and Configuration Guide*** for instructions.
7. Copy the re-customized Excel templates from **\\<server\OBTVTemplates\customer\maternal\excel\temp** to **\\<server\OBTVTemplates\customer\maternal\excel\manual**
8. Delete **\\<server\OBTVTemplates\customer\maternal\excel\temp**.

20
Hardware Upgrades

Introduction

This chapter describes how to upgrade the OB **TraceVue** PC **hardware and software** to the latest version.

Prerequisites (All Upgrades)

- Make sure that the PCs you are using
  - are supported by OB **TraceVue** (see ***Supported PCs*** on page 18-2)
  - meet the memory requirements (see ***Memory Requirements*** on page 18-4)
- Make sure that the network topology and cabling meets the requirements of this OB **TraceVue** revision.
  See ***Network Specifications*** on page 6-9 and ***Cable Specifications*** on page 6-11.
- Consider network security issues. See Task 39: ***Network Security*** on page 5-28.

Final Steps (All Upgrades)

After you have upgraded to a new version of OB **TraceVue** make sure that you

- finish the MS Office installation (see ***Final Tasks*** on page 6-51)
- print and backup the configuration record (see Task 40: ***Print and Back-Up Configuration Record*** on page 5-29)
- print out the installation record (see Task 41: ***Print out PC Installation Record*** on page 5-29)
- make a backup of the external database (see ***System Administration and Configuration Guide***)

Upgrading the Hardware with Software at Revision A.01.64

OB **TraceVue** cannot be upgraded from A.01.64. You must install a new system and then retrieve data from optical disks (see ***Retrieve from Optical Disk (RFO Wizard)*** on page 15-28).

HP PowerTrust Server UPS

If an existing A.01.64 server PC with an HP PowerTrust UPS is upgraded, the RS-232 link between the UPS and server will not work!

If you upgrade from A.01.64 using the existing PowerTrust UPS you will have no active RS-232 connection between the server PC and UPS. The PowerTrust UPS provides temporary battery power in case of power failure, but it will not shut down the server PC automatically. The PC must be shut down manually during a power failure before the battery is exhausted.

Note You should replace the HP PowerTrust UPS with an APC Smart 1000 server UPS as soon as possible (preferably before any upgrade) to avoid potential data loss or corruption.

To upgrade using the existing PowerTrust UPS:

1. Disconnect the serial cable from the HP PowerTrust UPS to server PC, **before** you upgrade.
2. Select the **No UPS** option during installation of Windows 2000.

In OB **TraceVue** setup: do not specify the UPS on any serial port.

Upgrading the Hardware with Software at Revision A.02.00

There is no hardware upgrade for A.02.00.

A.02.00 was replaced by A.02.10 in a worldwide mandatory upgrade. However, if you are working with a system that was not upgraded, you **must** upgrade to A.02.10 before starting the hardware upgrade process.

- Upgrade the software according to the ***Installation and Service Manual*** for that version.
- Continue with ***Upgrading or Exchanging the Hardware with Software at Revision A.02.10 or Higher*** on page 20-3.

Upgrading or Exchanging the Hardware with Software at Revision A.02.10 or Higher

Use this process when upgrading to a different PC or when exchanging the current PC for support purposes.

Upgrading the hardware also requires upgrading the software to the latest version. The software upgrade is also described in this chapter.

Restrictions

You **cannot** merge two databases during this upgrade.

Preparing OB TraceVue

- Shutdown OB **TraceVue** and run the ***Local Data Recovery Tool*** to ensure that the database has no corruption.
- Start OB **TraceVue** at the internal server and backup the internal database (see the ***System Administration and Configuration Guide*** for details).
- Start OB **TraceVue** at the external server (if available) and backup the external database (see the ***System Administration and Configuration Guide*** for details).
- Shutdown OB **TraceVue** and backup OB **TraceVue** at the internal server and at the external server using the ***Offline Backup Tool***.

Upgrading the Internal Server Hardware

Upgrade Requirements

An **existing** server with:

- Windows NT 4 or Windows 2000
- OB **TraceVue** A.02.10 or higher

A **new** server with:

- Windows 2000 installed, according to the OB **TraceVue** installation process for this OB **TraceVue** revision.

Preparing the Old Server

1. Export OB **TraceVue** Registry settings: insert the OB **TraceVue** server CD and start `h:\upgrade\tvregexp.cmd`.
2. Stop the OB **TraceVue** database server process:
   a. Start ***Sybase Central***.
   b. Select **Services**, then select **OBTV_DB_SERVER**.
   c. Open the **File** menu and click **Stop**.
   d. Select **OBTV_DB_SERVER** again.
   e. Open the **File** menu and click **Properties**.
   f. Check **Startup: Manual**, click **OK**.
3. Rename the server PC to **OLDSERVER**. Make a note of the original name for when you later need to rename the new server. Do not reboot at this point.
4. Check the network configuration. Write down the TCP/IP settings (of both network adapters if installed) and the DHCP server settings (address range).
5. Disable the TCP/IP network protocol for all installed network cards (do **not** reboot after this step).
6. Delete any existing DHCP Address Scope.
7. Create shares on drive C and D named **OBTV_C** and **OBTV_D**.
   In a command prompt, type the following:
   ```
   net share OBTV_C=C:\
   net share OBTV_D=D:\ (if available)
   ```
8. Reboot the PC, but do **not** start OB **TraceVue**.

Preparing the New Server

1. Connect the PC to the network.
2. Start Windows.
3. Rename the new PC to original name of the old server.
4. Reboot the PC.
5. Delete any existing DHCP Address Scope.
6. Configure the TCP/IP and DHCP Service according to the installation process for this revision. Use the settings of the old server.
7. Reboot the PC
8. Map the following network drives[1]:
   `\\OLDSERVER\OBTV_C` to `X`
   `\\OLDSERVER\OBTV_D` to `Y` (if available)
9. Copy the following directories:
   `X:\TV2` → `C:\TV2`
   `X:\TV2_Templates` → `C:\TV2_Templates` (if available)
   `X:\TV2_Templates.*` → `C:\TV2_Templates.*` (if available)
   `Y:\TV2` → `D:\TV2` (if available)
10. **If upgrading from C.01.01 or earlier**: import the OB **TraceVue** registry settings. Double click `C:\TV2\OBTV.REG` on the new server. Confirm the message box.

---

1. Do not check **Reconnect at ...**
   If upgrading from D.00.00 or higher connect as ***OBTV Administrator*** (click **Connect using a different user name**).

Upgrading OB TraceVue on the New Server

1. Run the OB **TraceVue** Setup from current CD-ROM using the following selections:
   - If upgrading from D.00.00 or higher: **Recover existing OB TraceVue installation**
   - **Install the OB TraceVue Software**
   - Keep settings **Network Server** or **Standalone PC** as is.
   - **Keep existing Database and Data Files.**

Caution: **Do not delete the existing database and files. If you delete the existing database, all patient data and configuration is lost.**

   - **Do not change system settings** (no password required).
   - **Settings for this PC** / **Additional System Settings** dialog:
     - If the number of RS-232 interfaces of the new server differs from the number of RS-232 interfaces of the old server check **Define Port Settings**.
     - If you want to change the system language check **Define System Language**.
   - To update customized templates refer to ***Upgrading Word and Excel Templates*** on page 19-24.
   - Configure drives if **Setup** requests.
2. Press **Finish** to reboot the PC.
3. Apply available OB **TraceVue** service packs for this revision.
4. Start OB **TraceVue**, backup the internal database.
5. Shutdown OB **TraceVue**, run the ***Database Rebuild Tool***.
6. Start OB **TraceVue**, backup the internal database again.
7. Print and backup the configuration record (see Task 40: ***Print and Back-Up Configuration Record*** on page 5-29).
8. Print out the installation record (see Task 41: ***Print out PC Installation Record*** on page 5-29).
9. If required, relabel the upgraded PC:

   Complete the system serial number label (supplied with the upgrade shipment) with the product number and serial number of the replacement PC. Stick the label onto the right side of the new PC; see the existing PC for the exact location.

Cleanup Old Server

Make sure you **delete** the contents of the **old server PCs hard disk** when you have finished upgrading. This is required as you no longer have software licenses for the old PC.

Use the installation boot floppies to format drive C and D.

External Database Server Hardware Upgrade

Upgrade Requirements

An existing external database server with:

- Windows 2000 or NT 4.0
- OB **TraceVue** A.02.10 or higher

A new external database server with:

- Windows 2000 installed, according to the OB **TraceVue** installation process for the current OB **TraceVue** revision.

Prepare Old External Server

1. Make sure you have backed up the external database as described in ***Preparing OB TraceVue***.
2. Make sure you have backed up the external server using the ***Offline Backup Tool***. Store a copy of the backup file in the directory "`c:\temp`" for later use.
3. Stop the OB **TraceVue** database server process:
   a. Start ***Sybase Central***.
   b. Select **Services**, then select **OBTV_EXTDB_SERVER**.
   c. Open the **File** menu and click **Stop**.
   d. Select **Services**, then select **OBTV_EXTDB_SERVER** again.
   e. Open the **File** menu and click **Properties**.
   f. Check **Startup: Manual**, click **OK**.
4. Rename the server PC to **OLDEXTERNAL**. Make a note of the original name for when you later need to rename the new server. Do **not** reboot at this point.
5. Disable TCP/IP network protocol for all installed network cards (do not reboot after this step).
6. Create share on drive C named **OBTV_C**.

   In a command prompt, type the following:

   ```
   net share OBTV_C=C:\
   ```
7. Reboot the PC.

Install New External Server

1. Connect the PC to the network.
2. Start Windows.
3. Rename the new PC to original name of the old external server.
4. Reboot the PC.
5. Configure the TCP/IP and DHCP Service according to the installation process for this revision.
6. Reboot the PC
7. Map the following network drive: `\\OLDEXTERNAL\OBTV_C` to `X`
8. Do not check **Reconnect at...**.

   If upgrading from D.00.00 or higher, connect as "OLDEXTERNAL\OBTV Administrator" (click Connect using a different user name).
9. Restore OB **TraceVue** from the file stored in "`X:\Temp`", see ***Restore an OB TraceVue Installation*** on page 14-11) for detailed instructions.
10. Start the ***Database Rebuild Tool***.
11. Start OB **TraceVue**, backup the **external** database.
12. Make a backup of the **internal** database (Configuration Toolbar on the internal server).
13. Print and backup the configuration record (see Task 40: ***Print and Back-Up Configuration Record*** on page 5-29).
14. Print the installation record (see Task 41: ***Print out PC Installation Record*** on page 5-29).
15. Relabel the upgraded PC:

    Complete the system serial number label (supplied with the upgrade shipment) with the product number and serial number of the replacement PC. Stick the label onto the right side of the new PC; see the existing PC for the exact location.

Cleanup Old Server

If you have upgraded using **new PC hardware**, you must make sure you **delete** the contents of the **old PCs hard disk** when you have finished upgrading. This is required as you no longer have software licenses for the old PC.

Use the installation boot floppies to format drive C and D.

21
System Upgrades

Introduction

This chapter describes how to upgrade an entire OB **TraceVue** system:

- ***Upgrading to Storage System (Standalone Drives)***
- ***Upgrading To Storage System (Medium Changers)***
- ***Adding a Retrieve Drive***
- ***Adding an Optical Medium Changer (Jukebox)***
- ***From Standalone to Network Server***
- ***From Small Network to Larger Network***
- ***Adding Web Client Licenses***
- ***Adding WEB/Terminal Server PC***
- ***Adding External Database Server PC***

Remember, when you add (or delete) PCs you must make a new configuration backup record (see ***Print and Back-Up Configuration Record*** on page 5-29) and installation record printout (see ***Print out PC Installation Record*** on page 5-29).

Upgrading to Storage System (Standalone Drives)

1. If required, install SCSI host adapter. See ***SCSI Host Adapter*** on page 12-7.
2. Install secondary hard disk (**not on RAID systems**).
   See ***Secondary Hard Disk Drive (for Storage Systems)*** on page 12-8.
3. Connect the optical drive(s). See ***Optical Drives*** on page 12-11
4. Start OB **TraceVue** setup.
   - Select **Change database settings or System Options**. See ***System Settings*** on page 16-5.
   - Select **Storage**.
   - Select **Define Server Drives settings**. See ***Server Name (client only)*** on page 16-8.

Upgrading To Storage System (Medium Changers)

1. If required, install SCSI host adapter. See ***SCSI Host Adapter*** on page 12-7.
2. Install secondary hard disk (**not on RAID systems**).
   See ***Secondary Hard Disk Drive (for Storage Systems)*** on page 12-8.
3. Connect the changer. See ***Optical Medium Changers (Jukeboxes)*** on page 12-12.
4. Power-up the medium changer and boot the server PC.
5. Install the Windows device driver. See ***Optical Medium Changers (Jukeboxes)*** on page 17-27.
6. Start OB **TraceVue** setup.
   - Select **Only change database settings or System Options**. See ***System Settings*** on page 16-5.
   - Activate ***Storage***.
   - In the **Assign disk drives** dialog, select the **backup drive** and check **Use the installed Autochanger**. See ***Disk Drives (Optical Medium Changers)*** on page 16-7
7. Feed the optical media into disk changer.
8. Start OB **TraceVue**.

Adding a Retrieve Drive

1. Shut down OB **TraceVue**, and switch off the PC.
2. Connect the second optical drive.
   See ***Optical Drives***, ***Drive Settings*** on page 12-11.
3. Power on the optical drive.
4. Switch on the PC.
5. Start OB **TraceVue** setup.
   - Select **Change database settings or System Options**. See ***System Settings*** on page 16-5.
   - Select **Define Server Drives settings**. See ***Server Name (client only)*** on page 16-8.

Adding an Optical Medium Changer (Jukebox)

Note OB **TraceVue** supports one optical medium changer plus one standalone optical drive.

1. Connect the changer. See ***Optical Medium Changers (Jukeboxes)*** on page 12-12.
2. Power-up the medium changer and boot the server PC.
3. Install the device driver. See ***Optical Medium Changers (Jukeboxes)*** on page 17-27.
4. Start OB **TraceVue** setup.
   - Select **Only change database settings or System Options**. See ***System Settings*** on page 16-5.
   - Activate ***Storage***.
   - In the **Assign disk drives** dialog, select the **backup drive** and check **Use the installed Autochanger**. See ***Disk Drives (Optical Medium Changers)*** on page 16-7.
5. Feed optical media into disk changer.
6. Start OB **TraceVue**.

From Standalone to Network Server

1. Connect the standalone to the network.
2. If required, change the name of the PC in the operating system (***Control Panel***).
3. In the operating system, install the DHCP server service. See also ***Manual Windows Configuration*** on page 17-15.
4. Share the CD-ROM drive as **CDROM**.
5. Run OB **TraceVue server setup**.
6. Update Windows licenses and OB **TraceVue** licenses as described in ***Updating OB TraceVue Licenses on page 21-4***.
7. Run OB **TraceVue** setup on all client PCs.
8. Connect and install the printer to a client and then share it.

From Small Network to Larger Network

If a customer increases the size of the network you must add and set up clients following the Windows and OB **TraceVue** installation instructions.

Updating OB TraceVue Licenses

1. Run the OB **TraceVue** setup on the server PC.
2. Select **Only change database settings or system settings**.
3. Select **Change System Settings**.
4. Increase the number of clients.
5. Finish Setup to reboot the server PC.

Adding Web Client Licenses

If a customer wants to add additional OB **TraceVue** Web Client licenses, these can be ordered separately.

For the maximum number of Web Client licenses supported on a single WEB/Terminal Server PC see ***WEB/Terminal Servers*** on page 18-5.

If more licenses are required additional WEB/Terminal Server PCs have to be installed. Additionally the total number of client PC's (Web clients and network clients) must not exceed the limits for the currently used internal server hardware.

The number of client licenses must be increased at the following places:

1. **Updating Terminal Services Configuration on WEB/Terminal Server PC**
   a. Start the Terminal Services Configuration tool: **Start** → **Programs** → **Administrative Tools** → **Terminal Services Configuration**.
   b. In the left pane select **Connections**, in the right pane select **OBTV Tcp**.
   c. From the menu select **Action** → **Properties**.
   d. Choose the **Network Adapter** tab.
   e. Increase the maximum number of connections entry box by the number of additional licenses. The maximum number that can be entered here is 12.
2. **Updating License Information at Internal Server PC**

   Follow the instructions in ***From Small Network to Larger Network*** on page 21-4 to increase the licenses at the internal server PC. Web Client licenses are handled and counted at the internal server as normal OB **TraceVue** client licenses.

Adding WEB/Terminal Server PC

For adding WEB/Terminal Server PC follow the Windows and OB **TraceVue** installation instructions for that PC type. Refer to the according chapters in "New System Installation".

Additionally the licenses at the internal server PC have to be updated. Follow the instructions in ***From Small Network to Larger Network*** on page 21-4 to increase the number of licenses according to the Web Client licenses that come pre installed with the WEB/Terminal Server PC.

Adding External Database Server PC

After the installation of an External Database Server PC on an existing system you have to restart OB **TraceVue** on the internal server.

22
HP Kayak XA PCs

Specifications

This chapter refers to the following PCs:

- HP Kayak XA/400
- HP Kayak XA/500

All Configurations

All HP Kayak XA PCs supplied for OB **TraceVue** include:

- A sound card fitted in the ISA card slot,
- A 10/100 Base T LAN adapter fitted in a PCI slot,
- Two RS-232 serial ports (COM ports). The lower connector is Serial A, the upper connector is Serial B.

The maximum number of COM ports supported is four.

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Kayak XA PC Workstation User's Guide [Part Number D6738-90001]

Slot Assignments for HP Kayak XA

Note Slot numbers marked on the backpanel or on the system board of the kayak XA may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

Table 22-1 Slots for HP Kayak Series 6 Desktop PCs

Accessory Card and Type	Slot Number and Type	
	Server/Standalone	other
Display adapter (AGP)	Slot 1 (AGP)	Slot 1 (AGP)
Additional RS-232 Serial I/F (PCI)	Slot 2 (PCI)*	Slot 2 (PCI)
Adaptec SCSI controller	Slot 3 (PCI)	Not Applicable
LAN Adapter (PCI)	Slot 4 (PCI)	Slot 4 (PCI)
LightPen (ISA)	Slot 5 (ISA)	Slot 5 (ISA)
Soundcard (ISA)	Slot 6 (ISA)	Slot 6 (ISA)
2nd Network Interface Card	Slot 2 (PCI)* Only applicable if Remote LAN Client is installed.	Slot 3 (PCI)

* it is not possible to have all devices due to mechanical conflicts

Lightpen Settings for HP Kayak XA

For detailed information about the Lightpen, refer to FTG Data Systems' PXL-395 User's Guide.

- Use the IRQ jumper on the card to set the IRQ.
- Use the dip switches on the card to set the base I/O address.
- Configuration of the lightpen driver software is only necessary if you install the driver manually (see ***Light Pen*** on page 17-26).

Table 22-2 Lightpen Settings - HP Kayak XA

Setting	Value
IRQ	7
Base I/O Address	210 (default)

Table 22-3 Light Pen Card DIP Switch Setting for Base I/O Address 210

Switch	Setting
1	OFF
2	ON
3	ON
4	ON

Soundcard Settings for HP Kayak XA

The IRQ is auto-assigned. No manual configuration is necessary.

PCI RS-232 I/F Card

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports, the maximum allowed for an OB **TraceVue** PC.

Do **not** fit the ISA RS-232 serial interface card supplied for earlier PCs.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Kayak XA PCs.

BIOS Version for HP Kayak XA

The required BIOS version is **HU.11.11US**.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for HP Kayak XA

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the self-test, press **F2**.
4. Follow the on-screen instructions to view and change different screens and settings.

To reset the BIOS settings to the Default Settings

1. Follow steps 1 through 3 described above (To view or change a PC's BIOS settings).
2. Press **F9 Setup Defaults**

In the table below **differences from the default BIOS settings are shaded**.

Table 22-4 BIOS Settings for HP Kayak XA

Main	
PnP Operating System	[No]
Reset Configuration Data	[No]
System Time	Current [hh:mm:ss]
System Date	Current [dd:mm:yyyy]
Key click	[Disabled]
Key auto-repeat speed	[21.8 /s]
Delay before auto-repeat	[0.25 s]
Numlock at POWER ON	[On]
Advanced	
Processors, Memory and Cache	
Memory Caching	[Enabled]

Table 22-4 BIOS Settings for HP Kayak XA

Error Checking	[ECC Scrubbing]	
Processor Serial Number[1]	[Disabled]	
Flexible Disk Drives		
Flexible Disk Controller	[Enabled]	
Flexible Disk Drive A	[1.44 MB 3½"]	
Flexible Disk Drive B	[Disabled]	
IDE Devices	***Server/Standalone/ External Server***	***Client***
IDE Device Primary Master Device	[*capacity*][2]	[*capacity*]
IDE Primary Slave Device	[None]	[None]
IDE Secondary Master Device	[CD-ROM]	[None]
IDE Secondary Slave Device	[None]	[None]
Large Disk access Mode	[NT/DOS]	[NT/DOS]
Integrated Bus IDE adapters	[Both (IRQ 14/15)]	[Primary (IRQ14)]
Integrated Network Interface		
Integrated Network Interface	[Enabled]	
Integrated I/O Ports		
Parallel Port	[enabled]	
Base I/O address	[378]	
Interrupt	[IRQ7]	
Parallel port mode	[output only]	
Serial port A	[Enabled]	
Base I/O address	[3F8]	
Interrupt	[IRQ4]	
Serial port B	[Enabled]	
Base I/O address	[2F8]	
Interrupt	[IRQ3]	
Integrated USB Interface		
Integrated USB Interface	[Disabled/PnP OS]	
PCI Slot Configuration		
Slot # 1 Bus Master	[Disabled]	
Slot # 2 Bus Master	[Disabled]	
Slot # 3 Bus Master	[Disabled]	

Table 22-4 BIOS Settings for HP Kayak XA

Slot # 4 Bus Master	[Disabled]
ISA Resource Exclusion	
IRQ 3	[Available]
IRQ 4	[Available]
IRQ 5	[Available]
IRQ 7	[Reserved]
IRQ 9	[Available]
IRQ 10	[Reserved]
IRQ 11	[Available]
IRQ 15	[Available]
C800 - CBFF	[Available]
CC00 - CFFF	[Available]
D000 - D3FF	[Available]
D400 - D7FF	[Available]
D800 - DBFF	[Available]
DC00 - DFFF	[Available]
Security	
User Password	
User Password	Not Set
Set User Password	[Press Enter]
Administrator Password	
Administrator Password	Not Set
Set Administrator Password	[Press Enter]
Power-On Password	[None]
Minimum Admin Password Length	[None]
Minimum User Password Length	[None]
Maximum Number of Attempts	[Infinite]
Lock Time Between Attempts	[None]

Table 22-4 BIOS Settings for HP Kayak XA

Hardware Protection	
Integrated Flexible Disk Controller	
Flexible Disks	[Unlocked][3]
Write on Flexible Disks	[Unlocked]
Integrated IDE Controllers	
Hard Disks / CD-ROM	[Unlocked]
Hard Disk Boot sector	[Unlocked]
Integrated Data Communication Ports	
Serial Port A	[Unlocked]
Serial Port B	[Unlocked]
Parallel Port	[Unlocked]
Boot Devices Security	
Start from Integrated Network	[Disabled]
Start from Floppy	[Disabled]
Start from IDE CD-ROM	[Disabled]
Start from HDD	[Enabled]
Boot	
Quickboot Mode	[Enabled]
Display Option ROM Messages	[Enabled]
Boot Device Priority	1. [Removable Devices] 2. [Hard Drive] 3. [ATAPI CD-ROM Drive]
Hard Disk Drives	1.[*IDE hard disk*][4] 2.[*SCSI hard disk*][5] 3.[Bootable Cards][6]
Removable Devices	1. Legacy Floppy Drives

Table 22-4 BIOS Settings for HP Kayak XA

Power	
Standby delay	[None]
Suspend delay	[None]
Standby Wakeup	
Mouse PS/2 IRQ12	[Disabled]
Suspend Wakeup	
Modem IRQ	[IRQ 5]
Modem Ring	[Disabled]
Integrated Network	[Disabled]
Power-On	
Space-bar	[Disabled]
Integrated Network	[Disabled]

1. HP Kayak XA/500 only
2. Depends on actual hard disk.
3. Set to **Locked** when installation is complete.
4. Actual IDE hard disk is shown.
5. Actual SCSI hard disk is shown (only if server fitted with archiving option).
6. Optical drives are shown if connected.

SCSI BIOS Settings for HP Kayak XA

This section applies to server and standalone PCs fitted with the storage option.

The SCSI BIOS is separate from the PC BIOS. It is stored on the Adaptec SCSI Host Adapter board.

OB **TraceVue** requires the default SCSI BIOS settings **except** if you have the following:

- Kayak XA PCs with storage option and Adaptec AHA-2940UW SCSI adapter (firmware revision 1.34.3).

AHA-2940UW SCSI Adapter Only

Only do this is if the PC has Adaptec AHA-2940UW! If not proceed to the section *Ensuring the Defaults are Loaded*.

You must change the Maximum Sync Transfer Rate in the SCSI BIOS settings to 20MB/s instead of 40MB/s. If the setting is already 20MB/s, no further action is required.

Note You must check and, if required, change this setting if you install a new Adaptec Ultra-Wide adapter or replace an existing adapter (for example, upgrade to add archive option or repair).

To change the setting:

1. Reboot the OB **TraceVue** server PC.
2. During bootup, when prompted press **Ctrl + A** to enter the **SCSISelect Utility**. (For non-English/US keyboards press **Ctrl + key to right of Caps Lock key**).
3. Select **Configure/View Host Adapter Settings**.
4. Select **SCSI Device Configuration**.

Note Make sure you do not change any other SCSI settings. If you think you may have changed some other settings, reset the host adapter defaults by pressing **F6** in the SCSI configuration dialog before continuing.

---

5. Perform steps a and b for all SCSI IDs (0-15)
   a. Select **Maximum Sync Transfer Rate (MB/s)**
   b. Change setting from 40.0 to **20.0**.
6. Press **Esc** twice, click **Yes** to **Save Changes Made?**
7. Press **Esc** once, click **Yes** to **Exit Utility?**
8. Press any key to reboot the PC.
9. **DO NOT continue with the next section in this manual *Ensuring the Defaults are Loaded*.**

Ensuring the Defaults are Loaded

To ensure that the defaults are loaded (**applicable in all cases except for PCs with storage options and AHA-2940UW SCSI adapter firmware v1.34.3**):

1. Reboot the PC and watch the screen carefully.
2. When the Adaptec screen prompts you, early in the startup procedure, press **Ctrl** + **A**.
3. Select **Configure/View Host Adapter Settings**.
4. Press **F6** to load the default SCSI BIOS settings.
5. When prompted **Reset ALL Options to Default Settings?** select **Yes**

Table 22-5 SCSI BIOS for HP Kayak XA (Server and Standalone)

SCSI-BUS Interface Definitions	
Host Adapter SCSI ID	[7]
SCSI Parity checking	[Enabled]
Host Adapter SCSI Termination	[Automatic]
Additional Options	
Boot Device Options	
Boot SCSI ID	[0]
Boot LUN Number	[0]
SCSI Device Configuration	
SCSI Device Configuration	# 0 to # 15
Initiate Synch Negotiation	[Yes]
Maximum Sync Transfer Rate (MB/s)	[20.0]
Enable Disconnection	[Yes]
Initiate Wide Negotiation	[Yes]
Send Start Unit Command	[No]
BIOS Multiple LUN Support	[No]
Include in BIOS scan	[Yes]
Advanced Configuration Options	
Plug and Play Scam Support	[Disabled]
Reset SCSI Bus at IC Initialization	[Enabled]
Extended BIOS Translation for DOS Drives >1Gbyte	[Enabled]
Host Adapter BIOS	[Enabled]

Table 22-5 SCSI BIOS for HP Kayak XA (Server and Standalone)

Support Removable Disks under BIOS as Fixed Disks	[Boot Only]
Display **CTRL A** Message During BIOS Initialization	[Enabled]
BIOS Support for Bootable CD-ROM	[Enabled]
BIOS Support for Int13 Extensions	[Enabled]
BIOS Information (Information only - not editable)	
Interrupt (IRQ) Channel	*dynamic*
I/O Port Address	*dynamic*

23
HP Kayak XU PCs

Specifications

This chapter refers to the following PCs:

- HP Kayak XU/400
- HP Kayak XU/450
- HP Kayak XU/500

Further information on HP Kayak XU PCs is available on the HP home page: ***http://www.hp.com***. Search for **Kayak**.

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Kayak XU PC Workstation User's Guide [Part Number D6738-90001]

Slot Assignments for HP Kayak XU

Note Slot numbers marked on the backpanel or on the system board of the Kayak XU may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **top** of the computer.

.

Table 23-1 Slots for HP Kayak XU MiniTower PCs

Accessory Card and Type	Slot Number and Type
Display adapter (AGP)	1 (AGP)
Add RS-232 Serial I/F	3 (PCI)
2nd Network Interface	4 (PCI)
Network Interface (combined) 2nd SCSI Interface	5 (PCI)
LightPen (ISA)	6 (ISA)
RS-232 Serial I/F (PCI)	Onboard
SCSI Interface	Onboard
SoundCard (ISA)	Onboard

Lightpen Settings for HP Kayak XU

For detailed information about the Lightpen, refer to FTG Data Systems' PXL-395 User's Guide.

- Use the IRQ jumper on the card to set the IRQ.
- Use the dip switches on the card to set the base I/O address.
- Configuration of the lightpen driver software is only necessary if you install the driver manually (see ***Light Pen*** on page 17-26).

Table 23-2 Lightpen Settings - HP Kayak XU

Setting	Value
IRQ	15
Base I/O Address	210 (default)

Table 23-3 Light Pen Card DIP Switch Setting for Base I/O Address 210

Switch	Setting
1	OFF
2	ON
3	ON
4	ON

Soundcard Settings for HP Kayak XU

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports, the maximum allowed for an OB **TraceVue** PC.

Do **not** fit the ISA RS-232 serial interface card supplied for earlier PCs.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Kayak XU PCs.

SCSI History

Non-storage System For Rev A.02.xx, on a non-storage system, the SCSI C drive was either Seagate ST39102LW or ST39103LW. Termination on each was with a ribbon cable terminator.

Storage System A storage system adds a D: SCSI hard disk. In this case, either C or D can be either Seagate ST39140W or Quantum Atlas 9.1 GB. The termination is different for each type:

- Seagate: Termination disabled on drive; jumper set to “Term Power to SCSI bus” Termination with ribbon cable terminator.
- Quantum Atlas: Termination with ribbon cable terminator.

BIOS Version for HP Kayak XU

The required BIOS version is **HK.11.11US**.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for HP Kayak XU

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the self-test, press **F2**.
4. Follow the on-screen instructions to view and change different screens and settings

To reset the BIOS settings to the Default Settings

1. Follow steps 1 through 3 described above (To view or change a PC’s BIOS settings).
2. Press **F9 Setup Defaults**

In the table below **differences from the default BIOS settings** loaded after the CMOS is cleared are **shaded**.

Table 23-4 BIOS Settings for HP Kayak XU

Main	
PnP Operating System	[No]
Reset Configuration Data	[No]
System Time	Current [hh:mm:ss]
System Date	Current [dd:mm:yyyy]
Key click	[Disabled]
Key auto-repeat speed	[21.8 /s]
Delay before auto-repeat	[0.25 s]
Numlock at POWER ON	[On]
Advanced	
Processors, Memory and Cache	
Multiprocessing	[MPS Multiprocessing]
Memory Caching	[Enabled]
Error Checking	[ECC Scrubbing]
Flexible Disk Drives	
Flexible Disk Controller	[Enabled]
Flexible Disk Drive A	[1.44 MB 3½"]
Flexible Disk Drive B	[Disabled]
IDE Devices	
IDE Device Primary Master Device	[CD-ROM]
IDE Primary Slave Device	[None]
Large Disk Access Mode	[NT/DOS]
Integrated Bus IDE Adapters	[Primary (IRQ 14)]
Internal SCSI 16 bits (Adaptec)	
Enable Device	[Enabled]
Option ROM Scan	[Enabled]
Enable Master	[Enabled]
Latency Timer	[0040h]
External & Internal SCSI 16/8 bits (Symbios)	
Ultra SCSI	[Auto]
Option ROM Scan	[Enabled]

Table 23-4 BIOS Settings for HP Kayak XU

Integrated Network Interface	
Integrated Network Interface	[Enabled]
Integrated I/O Ports	
Parallel Port	[Enabled]
Parallel port mode	Output only
Serial port A	[Enabled]
Serial port B	[Enabled]
Integrated USB Interface	
Integrated USB Interface	[Disabled/PnP OS]
Integrated Audio Device	
Integrated Audio	[Auto]
MIDI Port	[Disabled/PnP OS]
Game Port	[Disabled/PnP OS]
PCI Slot Configuration	
Slot # 1 Bus Master	[Disabled]
Slot # 2 Bus Master	[Disabled]
Slot # 3 Bus Master	[Disabled]
Slot # 4 Bus Master	[Disabled]
ISA Resource Exclusion	
IRQ 3	[Available]
IRQ 4	[Available]
IRQ 5	[Available]
IRQ 7	[Available]
IRQ 9	[Available]
IRQ 10	[Available]
IRQ 11	[Available]
IRQ 15	[Reserved]
C800 - CBFF	[Available]
CC00 - CFFF	[Available]
D000 - D3FF	[Available]
D400 - D7FF	[Available]
D800 - DBFF	[Available]
DC00 - DFFF	[Available]

Table 23-4 BIOS Settings for HP Kayak XU

Security	
User Password	
User Password	Not Set
Set User Password	[Press Enter]
Autosoft Lock	[None]
Screen Blanking	[Disabled]
Administrator Password	
Administrator Password	Not Set
Set Administrator Password	[Press Enter]
Power-On Password	[None]
Minimum Admin Password Length	[None]
Minimum User Password Length	[None]
Maximum Number of Attempts	[Infinite]
Lock Time Between Attempts	[None]
Hardware Protection	
Integrated Flexible Disk Controller	
Flexible Disks	[Unlocked]
Write on Flexible Disks	[Unlocked]
Integrated IDE Controllers	
Hard Disks / CD-ROM	[Unlocked]
Hard Disk Boot sector	[Unlocked]
Integrated Data Communication Ports	
Serial Port A	[Unlocked]
Serial Port B	[Unlocked]
Parallel Port	[Unlocked]
Boot Devices Security	
Start from Network	[Disable]
Start from Floppy	[Disabled]
Start from IDE CD-ROM	[Disable]
Start from IDE HDD	[Enabled]

Table 23-4 BIOS Settings for HP Kayak XU

Boot	
QuickBoot Mode	[Enabled]
Display Option ROM Messages	[Enabled]
Boot Device Priority	1. [Removable Devices] 2. [Hard Drive] 3. [ATAPI CD-ROM Drive] 4. [PCnet-FAST MBA]
Hard Disk Drives	1. [*SCSI hard disk 1*][1] 2. [*SCSI hard disk 2*] 3. [Bootable Cards]
Removable Devices	1. Legacy Floppy Drives
Power	
Standby delay	[None]
Suspend delay	[None]
Standby Wakeup	
Mouse PS/2 IRQ12	[Enabled]
Suspend Wakeup	
Modem IRQ	[IRQ 3] or [IRQ 4]
Modem Ring	[Enabled]
Integrated Network	[Enabled]
Power-On	
Space-bar	[Enabled]
Integrated Network	[Enabled]

1. Actual SCSI hard disk is shown

SCSI BIOS Settings for HP Kayak XU

This section applies to server and standalone PCs fitted with the storage option.

The SCSI BIOS is separate from the PC BIOS. It is stored on the Adaptec SCSI Host Adapter board.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC and watch the screen carefully.
2. When the Adaptec screen prompts you, early in the startup procedure, press **F6**.
3. Select **Configure/View Host Adapter Settings**.
4. Press **F6** to load the default SCSI BIOS settings.
5. When prompted **Reset ALL Options to Default Settings?** select **Yes**

SCSI IDs

Primary hard disk: 0

Secondary hard disk: 1

24
HP Vectra VL400 PC

Specifications

This chapter refers to the **HP Vectra VL400** PC:

All Configurations:

All HP Vectra VL400 PCs supplied for OB **TraceVue** include:

- A sound card onboard
- A 10/100 BaseT LAN adapter onboard
- Two RS-232 serial ports (COM ports)

Optional Configurations:

HP Vectra VL400 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A Lightpen card. The lightpen option adds the lightpen, lightpen holder, and lightpen extension lead.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd IDE hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Vectra VL400 PC User's Guide

Slot Assignments for HP Vectra VL 400

Note Slot numbers marked on the backpanel or on the system board of the VL400 may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

Table 24-1 Slots for HP Vectra VL400 PCs

Accessory Card and Type		Slot Number
Network Interface		Onboard
Display adapter		Onboard
RS-232 Serial I/F		Onboard
Add RS-232 Serial I/F		2
SCSI Interface	(internal **Server**)	3
2nd Network Interface	(internal **Server**)	4*
	(other PCs)	3
Lightpen (PCI)		4*
Sound Card		Onboard

* It is not possible to have all due to mechanical conflicts.

Lightpen Settings for HP Vectra VL 400

For detailed information about the lightpen, refer to **FTG Data Systems' PXL-595 (PCI) User's Guide.**

The IRQ is auto-assigned. No manual configuration is necessary.

Soundcard Settings for HP Vectra VL 400

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for HP Vectra VL 400

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports. Two USB ports are built into the PC. These ports are disabled at the BIOS. Do **not** make either, or both, of these ports available.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Vectra VL400 PCs.

BIOS Version for HP Vectra VL 400

The required BIOS version is **IP.01.08 US** or later.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for HP Vectra VL 400

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the self-test, press **F2**.
4. Follow the on-screen instructions to view and change different screens and settings

To reset the BIOS settings to the Default Settings

1. Follow steps 1 through 3 described above (To view or change a PC's BIOS settings).
2. Press **F9 Setup Defaults**

In the tables below **only the differences from the default BIOS settings** loaded after the CMOS is cleared are listed.

BIOS Settings

Table 24-2 BIOS Settings for HP Vectra VL400 PC

Advanced	
Integrated I/O Ports	
Parallel Port Mode	Output only
Security	
Boot Devices Security	
Start from network	Disabled
Start from floppy	Disabled
Start from IDE CD-ROM	Disabled
Power	
Advanced Power Management (APM) Mode	
Auto Suspend Timeout	Disabled

Table 24-2 BIOS Settings for HP Vectra VL400 PC

Suspend Wakeup on	
Modem Ring	Disabled

IDE Configuration for HP Vectra VL 400

The IDE devices are configured as follows:

Table 24-3 IDE Device Configuration

IDE Bus	IDE Device Configuration
IDE Bus 1	1st internal hard disk device jumper: CS (cable select) 2nd internal hard disk device jumper: CS (cable select)
IDE Bus 2	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

The connector to the C drive is labeled "Drive 0".

The connector to the D drive is labeled "Drive 1".

SCSI BIOS Settings for HP Vectra VL 400

This section applies to server and standalone PCs fitted with the storage option.

The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC and watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **F6**.
3. In the main menu make sure **SYM53C895** is selected, then press **Enter**.
4. Select **Adapter Setup**, then press **Enter**.
5. Select **Restore Default Setup**, then press **Enter**.
6. **Save Changes**.

Interrupt Adjustments for HP Vectra VL 400

All IRQs are auto-assigned. No manual configuration is necessary.

25
HP Vectra VL420 PC

Specifications

This chapter refers to the **HP Vectra VL420** PC:

All Configurations:

All HP Vectra VL420 PCs supplied for OB **TraceVue** include:

- A sound card onboard
- A 10/100 BaseT LAN adapter onboard
- Two RS-232 serial ports (COM ports)

Optional Configurations:

HP Vectra VL420 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A Lightpen card. The lightpen option adds the lightpen, lightpen holder, and lightpen extension lead.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd IDE hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the PC's user guide.

Slot Assignments for HP Vectra VL 420

Note Slot numbers marked on the backpanel or on the system board of the VL420 may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

Table 25-1 Slots for HP Vectra VL420 PCs

Accessory Card and Type		Slot Number
Network Interface		Onboard
Display adapter		1
RS-232 Serial I/F		Onboard
Add RS-232 Serial I/F		2
SCSI Interface	(internal **Server**)	3
2nd Network Interface	(internal **Server**)	4*
	(other PCs)	3
Lightpen (PCI)		4*
Sound Card		Onboard

* It is not possible to have all due to mechanical conflicts.

Lightpen Settings for HP Vectra VL 420

For detailed information about the lightpen, refer to **FTG Data Systems' PXL-595 (PCI) User's Guide.**

The IRQ is auto-assigned. No manual configuration is necessary.

Soundcard Settings for HP Vectra VL 420

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for HP Vectra VL 420

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports. Two USB ports are built into the PC. These ports are disabled at the BIOS. Do **not** make either, or both, of these ports available.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Vectra VL420 PCs.

BIOS Version for HP Vectra VL 420

The required BIOS version is **JA 01.04 US** or later.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for HP Vectra VL 420

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the HP welcome screen, press **F8 (Configuration and Diagnostics)**.
4. In the **Select First Boot Device** screen, press **F2 Setup**.
5. Follow the on-screen instructions to view and change different screens and settings

To reset the BIOS settings to the Default Settings

1. Follow steps 1 through 4 described above (To view or change a PC's BIOS settings).
2. Press **F9 Setup Defaults**

In the tables below **only the differences from the default BIOS settings** loaded after the CMOS is cleared are listed.

BIOS Settings

Table 25-2 BIOS Settings for HP Vectra VL420 PC

Advanced		
IDE Device Configuration	***Server. Standalone External server***	***Client***
Integrated Bus IDE Adapter	Both enable	Primary only
Peripheral Configuration		
Parallel Port Mode	Output only	
Security		
Device Start Protection		
Start from network	Disabled	
Start from floppy	Disabled[1]	
Start from IDE CD-ROM	Disabled[2]	

Table 25-2 BIOS Settings for HP Vectra VL420 PC

Start from USB	Disabled

1. Client PCs: Enable for installation, disable after installation
2. Server PCs: Enable for installation, disable after installation

IDE Configuration for HP Vectra VL 420

The IDE devices are configured as follows:

Table 25-3 IDE Device Configuration

IDE Bus	IDE Cable Connector Label	IDE Device Configuration
IDE Bus 1	Drive 0 Drive 1	1st internal hard disk device jumper: CS (cable select) 2nd internal hard disk device jumper: CS (cable select)
IDE Bus 2	Drive 0 Drive 1	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

SCSI BIOS Settings for HP Vectra VL 420

This section applies to server and standalone PCs fitted with the storage option.

The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Early in the HP welcome screen press **ESC** to get to the startup screen.
2. When the Symbios screen prompts you, early in the startup procedure, press **F6**.
3. In the main menu make sure **SYM53C895** is selected, then press **Enter**.
4. Select **Adapter Setup**, then press **Enter**.
5. Select **Restore Default Setup**, then press **Enter**.
6. **Save Changes**.

Interrupt Adjustments for HP Vectra VL 420

All IRQs are auto-assigned. No manual configuration is necessary.

26
HP Netserver LC2000 PC

Specifications

This chapter refers to the **HP NetServer LC2000** PC:

All Configurations:

All HP NetServer LC2000 PCs supplied for OB **TraceVue** include:

- Two SCSI interfaces onboard.
- A 10/100 BaseT LAN adapter onboard.
- Two RS-232 serial ports (COM ports).
- A RAID Controller, five hot-swap hard disks.

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP NetServer LC2000 Installation Guide D8514-9000.

Serial Ports

On the backpanel of the LC 2000 the serial ports are labeled as follows:

Table 26-1 HP NetServer LC 2000 Serial Port Labeling

Serial Port	Label
A (COM 1)	**IOIO**
B (COM 2)	**Management Port**

Slot Assignments for HP NetServer LC2000

Note Slot numbers marked on the backpanel or on the system board of the LC2000 may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **top** of the computer.

Table 26-2 Slots for HP NetServer LC2000 PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
2 SCSI Interfaces	Onboard
Second Network Interface	2
RAID Controller	3

RAID Configuration for the HP NetServer LC2000

The following procedure describes the initial RAID configuration before the Windows installation. The RAID configuration procedure is not necessary if you perform a re-installation on the same hardware.

The RAID configuration is necessary if you

- replace an existing LC2000 by a new LC2000
- upgrade an LC2000 without RAID

Prerequisites The PC BIOS option **Boot from CDROM** must be temporarily enabled.

Configure the adapter

1. Reboot the NetServer with the bootable CD-ROM **HP NetServer Navigator** revision L.20.00 (or higher).
2. In the Main Menu (click on **Home**, if not visible) select **Configure the Server**.
3. Select **Custom Setup** → **Disk Array Controller Configuration**.
4. Select **Run NetRAID Assistant disk array utility** and click **Continue**.
5. In the NetRAID Assistant Utility, start **Configuration** → **Load**.
6. Confirm the warnings with **OK** and insert the OB **TraceVue** Installation Boot Disk into the floppy disk drive.
7. Select Drive **A:** in the file selection dialog and type **netraid.cfg** as filename into the corresponding field. The tool loads the prepared configuration file.
8. The adapter is now configured correctly. If you want to initialize your disks, continue with next section. Otherwise exit the tool and reboot the PC.

Initialize the disks

Caution: **All data on the hard disks will be lost.**

---

1. Start the **NetServer Navigator** as described above (if not already done). The adapter must be configured correctly.
2. Select the logical drive (labeled as **LD 0: RAID 5: 52095MB**) in the lower tool window.
3. From the menu select **Logical Drive** → **Initialize**.
4. Exit the tool and reboot the PC.

Configuration and Setup Tables

This section provides configuration and setup tables for HP NetServer LC2000 PCs.

BIOS Versions for the HP NetServer LC2000

To find the exact revision number of the BIOS, insert the client or the server CD into the drive and type **<*drive*>\tools\idvectra -b** in a command window.

LC2000: The required PC BIOS version is **4.06.29.PV** or later.
LC2000 U3: The required PC BIOS version is **4.06.04.RM** or later.

RAID controller for **LC2000** and **LC2000 U3:**
NetRAID-1M: The required BIOS version is **G.02.03** or later
The required firmware version is **H.02.01** or later

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

PC BIOS Settings for the HP NetServer LC2000

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the self-test, press **F2**.
4. Follow the on-screen instructions to view and change different screens and settings

To reset the BIOS settings to the Default Settings

1. Follow steps 1 through 3 described above (To view or change a PC's BIOS settings).
2. Press **F9 Setup Defaults**

In the tables below **only the differences from the default BIOS settings** loaded after the CMOS is cleared are listed.

Table 26-3 BIOS Settings for HP NetServer LC2000 PC

Configuration	
Integrated I/O Port Settings	
Serial Ports	
Serial Port B - Enable port as	Serial Port
Security	
Hardware Security	
Start from Flexible Disk	Disabled
Start from CD-ROM	Disabled

SCSI BIOS Settings for HP Netserver LC2000 (HP P2478U / P1802U)

The SCSI BIOS is stored on the SCSI host adapter card. It is separate from the PC BIOS. OB **TraceVue** requires the **default** SCSI BIOS settings. The LC2000 PC has two SCSI controllers onboard.

To ensure that the SCSI BIOS defaults for both SCSI controllers are loaded:

1. Reboot the PC and watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **CTRL-C**.
3. In the main menu make sure the first controller **SYM53C896** is selected, then press **Enter**.
4. Select **Adapter Setup**, then press **Enter**.
5. Select **Restore Default Setup**, then press **Enter**.
6. Press **Esc** twice.
7. Select **Save Changes** and press **Enter**.
8. In the main menu make sure the second controller **SYM53C896** is selected, then press **Enter**.
9. Select **Adapter Setup**, then press **Enter**.
10. Select **Restore Default Setup**, then press **Enter**.
11. Press **Esc** twice.
12. Select **Save Changes** and press **Enter**.
13. In the main menu select **Quit**, and press **Enter** to reboot the PC.

SCSI BIOS Settings for HP Netserver LC2000 U3 (HP P2478W)

The SCSI BIOS is stored on the SCSI host adapter card. It is separate from the PC BIOS. OB **TraceVue** requires the **default** SCSI BIOS settings. The LC2000 PC has two SCSI controllers onboard.

To ensure that the SCSI BIOS defaults for both SCSI controllers are loaded:

1. Reboot the PC and watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **CTRL-C**.
3. In the main menu make sure the first controller **53C1010-33** is selected, then press **Enter**.
4. Select **Restore Defaults**, then press **Enter**.
5. Press **Esc**.
6. Select **Save Changes** and press **Enter**.
7. In the main menu make sure the second controller **53C1010-33** is selected, then press **Enter**.
8. Select **Restore Defaults**, then press **Enter**.
9. Press **Esc**.
10. Select **Save Changes** and press **Enter**.
11. In the main menu press **ESC and** select **Exit** to reboot the PC.

Interrupt Adjustments for HP NetServer LC2000

All IRQs are auto-assigned. No manual configuration is necessary.

27
Compaq Evo D510 PC

Specifications

This chapter refers to the **Compaq Evo D510 CMT** PC:

All Configurations:

All Compaq Evo D510 PCs supplied for OB **TraceVue** include:

- A sound card onboard.
- A 10/100 BaseT LAN adapter onboard.
- Two RS-232 serial ports (COM ports).

Optional Configurations:

Compaq Evo D510 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A Lightpen card. The lightpen option adds the lightpen, lightpen holder, and lightpen extension lead.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd IDE hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

Compaq Evo D510 PC Hardware Reference Guide on the Documentation Library CD.

Slot Assignments for Compaq Evo D510

Note Slot numbers marked on the backpanel or on the system board of the PC may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

Table 27-1 Slots for Compaq Evo D510 PCs

Accessory Card and Type		Slot Number
Network Interface		Onboard
Display adapter		Onboard
RS-232 Serial I/F		Onboard
Add. RS-232 Serial I/F		2
SCSI Interface	(internal **Server**)	3
Second Network Interface	(internal **Server**) (other PCs)	4* 3
Lightpen (PCI)		4*
Sound Card		Onboard

* It is not possible to have all due to mechanical conflicts.

Lightpen Settings for Compaq Evo D510

For detailed information about the lightpen, refer to *FTG Data Systems' PXL-595 (PCI) User's Guide*.

The IRQ is auto-assigned. No manual configuration is necessary.

Soundcard Settings for Compaq Evo D510

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for Compaq Evo D510

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports.

Configuration and Setup Tables

This section provides configuration and setup tables for Compaq Evo D510 PCs.

BIOS Version for Compaq Evo D510

The required BIOS version is **v2.21** or later.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for Compaq Evo D510

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the Compaq welcome screen, press **F10 (Setup)**. Select the language and press **Enter**.
4. Follow the on-screen instructions to view and change different screens and settings.

To load the OB TraceVue default BIOS settings:

1. Follow steps 1 through 4 described above (*To view or change a PC's BIOS settings*).
2. Select **Set Defaults and Exit.** Press **Enter** and follow the instructions.

BIOS Settings **Only the differences from the default BIOS settings** are listed.

Table 27-2 BIOS Settings for Compaq Evo D510 PC

Storage	
Storage Options	
Removable Media Boot	Disabled
Security	
Network Service Boot	
Network Service Boot	Disabled
Power	
Energy Saver	
Energy Saver Mode	Disabled
Advanced	
Power-on Options	

Table 27-2 BIOS Settings for Compaq Evo D510 PC

F12 Prompt	Disabled

IDE Configuration for Compaq Evo D510

The IDE devices are configured as follows:

Table 27-3 IDE Device Configuration Compaq Evo D510

IDE Bus	IDE Cable Connector Label	IDE Device Configuration
IDE Bus 1	Drive 0 Drive 1	1st internal hard disk device jumper: CS (cable select) 2nd internal hard disk device jumper: CS (cable select)
IDE Bus 2	Drive 0 Drive 1	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

SCSI BIOS Settings for Compaq Evo D510

This section applies to server and standalone PCs fitted with the storage option. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Early in the Compaq welcome screen press **ESC** to get to the startup screen. Watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **F6**.
3. In the main menu make sure **SYM53C895** is selected, then press **Enter**.
4. Select **Adapter Setup**, then press **Enter**.
5. Select **Restore Default Setup**, then press **Enter**.
6. **Save Changes**.

Interrupt Adjustments for Compaq Evo D510

All IRQs are auto-assigned. No manual configuration is necessary.

28
HP Compaq D530 PC

Specifications

This chapter refers to the **HP Compaq D530 CMT** PC:

All Configurations:

All HP Compaq D530 PCs supplied for OB **TraceVue** include:

- A sound card onboard.
- A 10/100 BaseT LAN adapter onboard.
- Two RS-232 serial ports (COM ports).

Optional Configurations:

HP Compaq D530 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A Lightpen card. The lightpen option adds the lightpen, lightpen holder, and lightpen extension lead.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd IDE hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Compaq D530 Hardware Reference Guide on the Documentation Library CD.

Slot Assignments for HP Compaq D530

Note Slot numbers marked on the backpanel or on the system board of the PC may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

Table 28-1 Slots for HP Compaq D530 PCs

Accessory Card and Type		Slot Number
Network Interface		Onboard
Display adapter		Onboard
RS-232 Serial I/F		Onboard
Add. RS-232 Serial I/F		2
SCSI Interface	(internal **Server**)	3
Second Network Interface	(internal **Server**) (other PCs)	4* 3
Lightpen (PCI)		4*
Sound Card		Onboard

* It is not possible to have all due to mechanical conflicts.

Lightpen Settings for HP Compaq D530

For detailed information about the lightpen, refer to *FTG Data Systems' PXL-595 (PCI) User's Guide*.

The IRQ is auto-assigned. No manual configuration is necessary.

Soundcard Settings for HP Compaq D530

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for HP Compaq D530

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Compaq D530 PCs.

BIOS Settings for HP Compaq D530

The required BIOS version is **v2.40** or later.

If you need to update the BIOS: On the OB **TraceVue** CD-ROM start **Disks\D530_Bios.bat**

BIOS Settings for HP Compaq D530

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the HP welcome screen, press **F10 (Setup)**. Select the language and press **Enter**.
4. Follow the on-screen instructions to view and change different screens and settings.

To load the OB TraceVue default BIOS settings:

1. Follow steps 1 through 4 described above (*To view or change a PC's BIOS settings*).
2. Select **Set Defaults and Exit.** Press **Enter** and follow the instructions.

BIOS Settings **Only the differences from the default BIOS settings** are listed.

Table 28-2 BIOS Settings for HP Compaq D530 PC

Storage	
Storage Options	
Removable Media Boot	Disabled
Security	
Network Service Boot	
Network Service Boot	Disabled
Advanced	
Power-on Options	
F12 Prompt	Disabled

IDE Configuration for HP Compaq D530

The IDE devices are configured as follows:

Table 28-3 IDE Device Configuration HP Compaq D530

IDE Bus	IDE Cable Connector Label	IDE Device Configuration
IDE Bus 1	Drive 0 Drive 1	1st internal hard disk device jumper: CS (cable select) 2nd internal hard disk device jumper: CS (cable select)
IDE Bus 2	Drive 0 Drive 1	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

SCSI BIOS Settings for HP Compaq D530

This section applies to server and standalone PCs fitted with the storage option. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Early in the HP welcome screen press **ESC** to get to the startup screen. Watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **F6**.
3. In the main menu make sure **SYM53C895** is selected, then press **Enter**.
4. Select **Adapter Setup**, then press **Enter**.
5. Select **Restore Default Setup**, then press **Enter**.
6. **Save Changes**.

Interrupt Adjustments for HP Compaq D530

All IRQs are auto-assigned. No manual configuration is necessary.

29
Compaq ProLiant ML370 G2 PC

Specifications

This chapter refers to the **Compaq ProLiant ML370 G2** PC:

All Configurations:

All Compaq ProLiant ML370 G2 PCs supplied for OB **TraceVue** include:

- Two SCSI interfaces onboard
- A 10/100 BaseT LAN adapter onboard
- Two RS-232 serial ports (COM ports)
- A RAID Controller, five hot-swap hard disks

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given on the:

Compaq ProLiant ML370 G2 Documentation CD.

Slot Assignments for Compaq ProLiant ML370 G2

Note **Slot numbering used in this chapter:** Slot 1 is closest to the **bottom** of the computer.

Table 29-1 Slots for Compaq ProLiant ML370 G2 PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
2 SCSI Interfaces	Onboard
RAID Controller	Onboard
Second Network Interface	5

RAID Configuration for the Compaq ProLiant ML370 G2

The following procedure describes the initial RAID configuration before the Windows installation. The RAID configuration procedure is not necessary if you perform a reinstallation on the same hardware.

The RAID configuration is necessary if you replace an existing ML370 with a new ML370.

Note The RAID array must be connected to RAID port A.

Prerequisites The PC BIOS option **Boot from Floppy** must be temporarily enabled.

1. Create the ML370 Configuration Floppy from the OB **TraceVue** CD-ROM by running **DISKS\ML370_CFG.BAT**
2. Reboot the server with the bootable ML370 configuration floppy and follow the on-screen instructions.
3. The software configures the RAID controller, the hard disks, and the PC BIOS.
4. During operation, the server will reboot automatically.
5. Insert the OB **TraceVue** Installation Boot Disk into the floppy disk drive when requested and reboot the PC.

Continue with ***Windows 2000 New Installation***, ***Server/Standalone Setup*** on page 17-7.

Note During RAID configuration with the ML370 Configuration Floppy disk, the PC and RAID BIOS are automatically configured.

Configuration and Setup Tables

This section provides configuration and setup tables for Compaq ProLiant ML370 G2 PCs.

BIOS Version for Compaq ProLiant ML370 G2

The required **PC BIOS** version is **4.06A (P25 10/31/2003)** or later.

The required **RAID BIOS** version is **2.58** or later. This BIOS requires RAID controller driver **5.46.2.32** or higher.

If necessary, create a BIOS update floppy from the OB **TraceVue** CD-ROM and install the required BIOS.

BIOS Settings for Compaq ProLiant ML370 G2

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. After the self-test, press **F9**.
4. Follow the on-screen instructions to view and change different screens and settings

SCSI BIOS Settings for Compaq ProLiant ML370 G2

It is not possible to change SCSI BIOS settings.

Interrupt Adjustments for Compaq ProLiant ML370 G2

All IRQs are auto-assigned. No manual configuration is necessary.

PC and RAID BIOS Settings for Proliant ML370 G2

Do NOT change any BIOS settings.

Caution: **If you change the RAID configuration settings, data on the ML370 will be lost.**

30
HP ProLiant ML370 G3 PC

Specifications

This chapter refers to the **HP ProLiant ML370 G3** PC:

All Configurations:

All HP ProLiant ML370 G3 PCs supplied for OB **TraceVue** include:

- Two SCSI interfaces onboard
- A 10/100 /1000 Network adapter onboard
- Two RS-232 serial ports (COM ports)
- A RAID Controller, five hot-swap hard disks

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given on the:

HP ProLiant ML370 G3 Documentation CD.

Slot Assignments for HP ProLiant ML370 G3

Note **Slot numbering used in this chapter:** Slot 1 is closest to the **bottom** of the computer.

Table 30-1 Slots for HP ProLiant ML370 G3 PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
2 SCSI Interfaces	Onboard
RAID Controller	1
Second Network Interface	5

RAID Configuration for the HP ProLiant ML370 G3

The following procedure describes the initial RAID configuration before the Windows installation. The RAID configuration procedure is not necessary if you perform a reinstallation on the same hardware.

The RAID configuration is necessary if you replace an existing ML370 with a new ML370.

Prerequisites

Caution: **During RAID configuration, all data on the ML370 is erased.**

The PC BIOS option **Boot from Floppy** must be temporarily enabled.

1. Create the ML370 Configuration Floppy from the OB **TraceVue** CD-ROM by running **DISKS\ML370_CFG.BAT**
2. Reboot the server with the bootable ML370 configuration floppy and follow the on-screen instructions.
3. The software configures the RAID controller, the hard disks, and the PC BIOS.
4. During operation, the server will reboot automatically.
5. Insert the OB **TraceVue** Installation Boot Disk into the floppy disk drive when requested and reboot the PC.

Continue with ***Windows 2000 New Installation***, ***Server/Standalone Setup*** on page 17-7.

Note During RAID configuration with the ML370 Configuration Floppy disk, the PC and RAID BIOS are automatically configured.

Configuration and Setup Tables

This section provides configuration and setup tables for HP ProLiant ML370 G3 PCs.

If necessary, create a BIOS update floppy from the OB **TraceVue** client CD-ROM in the **DISKS** folder and install the required BIOS. For the RAID BIOS upgrade, start the upgrade tool directly from the client CD in the folder **DISKS\SA_641** and select "**Install**".

BIOS Version for HP ProLiant ML370 G3

The required **PC BIOS** version is **4.12 (P28 09/15/2004)** or later.

The required **RAID BIOS** version is **V2.34** or later.

BIOS Settings for HP ProLiant ML370 G3

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. After the self-test, press **F9**.
4. Follow the on-screen instructions to view and change different screens and settings

SCSI BIOS Settings for HP ProLiant ML370 G3

It is not possible to change SCSI BIOS settings.

Interrupt Adjustments for HP ProLiant ML370 G3

All IRQs are auto-assigned. No manual configuration is necessary.

PC and RAID BIOS Settings for Proliant ML370 G3

Do NOT change any BIOS settings.

Caution: **If you change the RAID configuration settings, data on the ML370 will be lost.**

31
HP ProLiant ML350 G4 PC

Specifications

This chapter refers to the **HP ProLiant ML350 G4** PC:

All Configurations:

All HP ProLiant ML350 G4 PCs supplied for OB **TraceVue** include:

- Two SCSI interfaces onboard
- A 10/100 /1000 Network adapter onboard
- Two RS-232 serial ports (COM ports)
- A RAID Controller, five hot-swap hard disks
- Highend internal and highend external servers only: One PCI SCSI adapter card for external devices

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given on the:

HP ProLiant ML350 G4 Documentation CD.

Slot Assignments for HP ProLiant ML350 G4

Note **Slot numbering used in this chapter:** Slot 6 is closest to the **bottom** of the computer.

Table 31-1 Slots for HP ProLiant ML350 G4 PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
2 SCSI Interfaces	Onboard
RAID Controller	5
Second Network Interface	3
Additional SCSI Controller	4

RAID Configuration for the HP ProLiant ML350 G4

The following procedure describes the initial RAID configuration before the Windows installation. The RAID configuration procedure is not necessary if you perform a reinstallation on the same hardware.

The RAID configuration is necessary if you replace an existing ML350 G4 with a new ML350 G4.

Prerequisites

Caution: **During RAID configuration, all data on the ML350 is erased.**

The PC BIOS option **Boot from Floppy** must be temporarily enabled.

1. Create the ML350 Configuration Floppy from the OB **TraceVue** CD-ROM by running **DISKS\ML350_CFG.BAT**
2. Reboot the server with the bootable ML350 configuration floppy and follow the on-screen instructions.
3. The software configures the RAID controller, the hard disks, and the PC BIOS.
4. During operation, the server will reboot automatically.
5. Insert the OB **TraceVue** Installation Boot Disk into the floppy disk drive when requested and reboot the PC.

Continue with ***Windows 2000 New Installation***, ***Server/Standalone Setup*** on page 17-7.

Note During RAID configuration with the ML350 Configuration Floppy disk, the PC and RAID BIOS are automatically configured.

Configuration and Setup Tables

This section provides configuration and setup tables for HP ProLiant ML350 G4 PCs.

If necessary, create a BIOS update floppy from the OB **TraceVue** client CD-ROM in the **DISKS** folder and install the required BIOS. For the RAID BIOS upgrade, start the upgrade tool directly from the client CD in the folder **DISKS\SA_641** and select "**Install**".

BIOS Version for HP ProLiant ML350 G4 (3.0 GHz)

The required **PC BIOS** version is **4.04 (D17 12/02/2004)** or later.

The required **RAID BIOS** version is **V2.34** or later.

BIOS Settings for HP ProLiant ML350 G4

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. After the self-test, press **F9**.
4. Follow the on-screen instructions to view and change different screens and settings.

SCSI BIOS Settings for HP Proliant ML350 G4

This section applies to a high-end internal and highend external server fitted with an additional PCI SCSI controller. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Watch the screen carefully.
2. When the Symbios screen prompts you, at the end of the startup procedure, press **Ctrl + C**.
3. In the main menu make sure **SYM53C895A** is selected, then press **Enter**.
4. Select **Restore Default Setup**, then press **Enter**.
5. Press **Esc** and save the changes.

Interrupt Adjustments for HP ProLiant ML350 G4

All IRQs are auto-assigned. No manual configuration is necessary.

PC and RAID BIOS Settings for Proliant ML350 G4

Do NOT change any BIOS settings.

Caution: **If you change the RAID configuration settings, data on the ML350 will be lost.**

32
HP ProLiant ML350 G4P PC

Specifications

This chapter refers to the **HP ProLiant ML350 G4P** PC:

All Configurations:

All HP ProLiant ML350 G4P PCs supplied for OB **TraceVue** include:

- Two SCSI interfaces onboard
- A 10/100 /1000 Network adapter onboard
- Two RS-232 serial ports (COM ports)
- A RAID Controller, five hot-swap hard disks
- Highend internal and highend external servers only: One PCI SCSI adapter card for external devices

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given on the:

HP ProLiant ML350 G4P Documentation CD.

Slot Assignments for HP ProLiant ML350 G4P

Note **Slot numbering used in this chapter:** Slot 6 is closest to the **bottom** of the computer.

Table 32-1 Slots for HP ProLiant ML350 G4P PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
2 SCSI Interfaces	Onboard
RAID Controller	5
Second Network Interface	3
Additional SCSI Controller	4

RAID Configuration for the HP ProLiant ML350 G4P

The following procedure describes the initial RAID configuration before the Windows installation. The RAID configuration procedure is not necessary if you perform a reinstallation on the same hardware.

The RAID configuration is necessary if you replace an existing ML350 G4P with a new ML350 G4P.

Prerequisites

Caution: **During RAID configuration, all data on the ML350 G4P is erased.**

The PC BIOS option **Boot from Floppy** must be temporarily enabled.

1. Create the ML350 G4P Configuration Floppy from the OB **TraceVue** CD-ROM by running **DISKS\ML350G4P_CFG.BAT**
2. Reboot the server with the bootable ML350 G4P configuration floppy and follow the on-screen instructions.
3. The software configures the RAID controller, the hard disks, and the PC BIOS.
4. During operation, the server will reboot automatically.
5. Insert the OB **TraceVue** Installation Boot Disk into the floppy disk drive when requested and reboot the PC.

Continue with ***Windows 2000 New Installation***, ***Server/Standalone Setup*** on page 17-7.

Note During RAID configuration with the ML350 G4P Configuration Floppy disk, the PC and RAID BIOS are automatically configured.

Configuration and Setup Tables

This section provides configuration and setup tables for HP ProLiant ML350 G4P PCs.

If necessary, create a BIOS update floppy from the OB **TraceVue** client CD-ROM in the **DISKS** folder and install the required BIOS. For the RAID BIOS upgrade, start the upgrade tool directly from the client CD in the folder **DISKS\SA_641** and select "**Install**".

BIOS Version for HP ProLiant ML350 G4P (3.2 GHz)

The required **PC BIOS** version is **D19 06/01/2005** or later.

The required **RAID BIOS** version is **V2.34** or later.

BIOS Settings for HP ProLiant ML350 G4P

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. After the self-test, press **F9**.
4. Follow the on-screen instructions to view and change different screens and settings.

SCSI BIOS Settings for HP Proliant ML350 G4P

This section applies to a high-end internal and highend external server fitted with an additional PCI SCSI controller. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Watch the screen carefully.
2. When the Adaptec screen prompts you, early in the startup procedure, press **Ctrl+A**.
3. Press **Enter**.
4. Select **Configure/View SCSI Controller Settings**, press **Enter**.
5. Press **F6** to load the default SCSI Bios settings.
6. When prompted **Reset ALL Options to Default Settings?**, select **Yes**, and press **Enter**.
7. Press **Esc** as necessary and select **Yes** to exit the menu.

Interrupt Adjustments for HP ProLiant ML350 G4P

All IRQs are auto-assigned. No manual configuration is necessary.

PC and RAID BIOS Settings for Proliant ML350 G4P

Do NOT change any BIOS settings.

Caution: **If you change the RAID configuration settings, data on the ML350 G4P will be lost.**

33
HP Compaq dc7100 PC

Specifications

This chapter refers to the **HP Compaq dc7100 CMT** PC:

All Configurations:

All HP Compaq dc7100 PCs supplied for OB **TraceVue** include:

- A sound card onboard.
- A 10/100/1000 BaseT LAN adapter onboard.
- Two RS-232 serial ports (COM ports).

Optional Configurations:

HP Compaq dc7100 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A Lightpen card. The lightpen option adds the lightpen, lightpen holder, and lightpen extension lead.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd SATA hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Compaq dc7100 Hardware Reference Guide on the Documentation Library CD.

Slot Assignments for HP Compaq dc7100

Note Slot numbers marked on the backpanel or on the system board of the PC may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

.

Table 33-1 Slots for HP Compaq dc7100 PCs

Accessory Card and Type	Slot Number
Network Interface	Onboard
Display adapter	Onboard
RS-232 Serial I/F	Onboard
Add. RS-232 Serial I/F	3
SCSI Interface (internal **Server**)	6
Second Network Interface	7
Lightpen (PCI)	4
Sound Card	Onboard

Lightpen Settings for HP Compaq dc7100

For detailed information about the lightpen, refer to *FTG Data Systems' PXL-595 (PCI) User's Guide*.

The IRQ is auto-assigned. No manual configuration is necessary.

Soundcard Settings for HP Compaq dc7100

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for HP Compaq dc7100

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Compaq dc7100 PCs.

BIOS Settings for HP Compaq dc7100

The required BIOS version is **v2.14** or later.

If you need to update the BIOS: On the OB **TraceVue** CD-ROM start **Disks\DC7100_Bios.bat**

BIOS Settings for HP Compaq dc7100

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the HP welcome screen, press **F10 (Setup)**. Select the language and press **Enter**.
4. Follow the on-screen instructions to view and change different screens and settings.

To load the OB TraceVue default BIOS settings:

1. Follow steps 1 through 4 described above (*To view or change a PC's BIOS settings*).
2. Select **Apply Defaults and Exit.** Press **Enter** and follow the instructions.

BIOS Settings **Only the differences from the default BIOS settings** are listed.

Table 33-2 BIOS Settings for HP Compaq dc7100 PC

Storage	
Storage Options	
Removable Media Boot	Disabled
Security	
Device Security	
Front UsB Ports	Device Hidden
Network Service Boot	
Network Service Boot	Disabled
Advanced	
Power-on Options	
F12 Prompt	Disabled

SATA Configuration for HP Compaq dc7100

The SATA devices are configured as follows:

Table 33-3 SATA Device Configuration HP Compaq dc7100

connected to SATA Bus	SATA Device
SATA Bus 0	first internal hard disk.
SATA Bus 1	second internal hard disk

IDEConfiguration for HP Compaq dc7100

The IDE devices are configured as follows:

Table 33-4 IDE Device Configuration HP Compaq dc7100

IDE Bus	IDE Cable Connector Label	IDE Device Configuration
Primary IDE Bus	Drive 0 Drive 1	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

SCSI BIOS Settings for HP Compaq dc7100

This section applies to server and standalone PCs fitted with the storage option. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Early in the HP welcome screen press **ESC** to get to the startup screen. Watch the screen carefully.
2. When the Symbios screen prompts you, early in the startup procedure, press **Ctrl+C**.
3. In the main menu make sure **SYM53C895A** is selected, then press **Enter**.
4. Select **Restore Default Setup**, then press **Enter**.
5. Press **Esc** and **Save Changes**.

Interrupt Adjustments for HP Compaq dc7100

All IRQs are auto-assigned. No manual configuration is necessary.

34
HP Compaq dc7600 PC

Specifications

This chapter refers to the **HP Compaq dc7600 CMT** PC:

All Configurations:

All HP Compaq dc7600 PCs supplied for OB **TraceVue** include:

- A sound card onboard.
- A 10/100/1000 BaseT LAN adapter onboard.
- Two RS-232 serial ports (COM ports).

Optional Configurations:

HP Compaq dc7600 PCs supplied for OB **TraceVue** may be fitted with:

- A PCI RS-232 Serial Interface that provides two additional COM ports, COM3 and COM4.
- A second network interface card.
- **Server only:** A PCI SCSI adapter card. The patient data storage option adds an internal 2nd SATA hard disk, and either one, or two external optical disk drive(s).

Removing the PC Cover

Before working inside the PC, refer to the detailed instructions for removing and replacing the PC's cover and other items (such as the PC's power supply) given in the:

HP Compaq dc7600 Hardware Reference Guide on the Documentation Library CD.

Slot Assignments for HP Compaq dc7600

Note Slot numbers marked on the backpanel or on the system board of the PC may differ from the slot numbering used in this chapter:

Slot numbering in this chapter: Slot 1 is closest to the **left** of the computer (rear view).

..

Table 34-1 Slots for HP Compaq dc7600 PCs

Accessory Card and Type		Slot Number
Network Interface		Onboard
Display adapter		Onboard
RS-232 Serial I/F		Onboard
Add. RS-232 Serial I/F		3[1]
SCSI Interface	(internal **Server**)	4
Second Network Interface	(internal **Server**)	3[1]
	(other PCs)	4
Sound Card		Onboard

1. It is not possible to have both due to mechanical conflicts

Soundcard Settings for HP Compaq dc7600

The IRQ is auto-assigned. No manual configuration is necessary.

RS-232 I/F Card for HP Compaq dc7600

Two RS-232 COM Ports, Serial A and Serial B are built into the PC. A PCI RS-232 serial interface may be fitted to provide a total of four COM ports.

Configuration and Setup Tables

This section provides configuration and setup tables for HP Compaq dc7600 PCs.

BIOS Settings for HP Compaq dc7600

The required BIOS version is **v1.03** or later.

If you need to update the BIOS: On the OB **TraceVue** CD-ROM start **Disks\DC7600_Bios.bat**

BIOS Settings for HP Compaq dc7600

To view or change a PC's BIOS settings:

1. Power down the PC using its on/off switch.
2. Turn on the PC.
3. During the HP welcome screen, press **F10 (Setup)**. Select the language and press **Enter**.
4. Follow the on-screen instructions to view and change different screens and settings.

To load the OB TraceVue default BIOS settings:

1. Follow steps 1 through 4 described above (*To view or change a PC's BIOS settings*).
2. Select **Apply Defaults and Exit.** Press **Enter** and follow the instructions.

BIOS Settings **Only the differences from the default BIOS settings** are listed.

Table 34-2 BIOS Settings for HP Compaq dc7600 PC

Storage	
Storage Options	
Removable Media Boot	Disabled
Boot Order	
Diskette Drive	
ATAPI CD-ROM Drive	
Hard Drive - Integrated SATA Hard Drive - Integrated IDE	
Broadcom Ethernet controller	Disabled
Optional Intel Ethernet controller	Disabled
USB device	Disabled
Security	

Table 34-2 BIOS Settings for HP Compaq dc7600 PC

Device Security	
Front UsB Ports	Device Hidden
Network Service Boot	
Network Service Boot	Disabled
Advanced	
Power-on Options	
F12 Prompt	Hidden

SATA Configuration for HP Compaq dc7600

The SATA devices are configured as follows:

Table 34-3 SATA Device Configuration HP Compaq dc7600

connected to SATA Bus	SATA Device
SATA Bus 0	first internal hard disk.
SATA Bus 1	second internal hard disk

IDEConfiguration for HP Compaq dc7600

The IDE devices are configured as follows:

Table 34-4 IDE Device Configuration HP Compaq dc7600

IDE Bus	IDE Cable Connector Label	IDE Device Configuration
Primary IDE Bus	Drive 0 Drive 1	CD-ROM drive device jumper: CS (cable select) Optional tape backup device jumper: CS (cable select)

SCSI BIOS Settings for HP Compaq dc7600

This section applies to server and standalone PCs fitted with the storage option. The SCSI BIOS is separate from the PC BIOS.

OB **TraceVue** requires the **default** SCSI BIOS settings. To ensure that these defaults are loaded:

1. Reboot the PC. Watch the screen carefully.
2. When the Adaptec screen prompts you, early in the startup procedure, press **Ctrl+A**.
3. Press **Enter**.
4. Select **Configure/View SCSI Controller Settings**, press **Enter**.
5. Press **F6** to load the default SCSI Bios settings.
6. When prompted **Reset ALL Options to Default Settings?**, select **Yes**, and press **Enter**.
7. Press **Esc** as necessary and select **Yes** to exit the menu.

Interrupt Adjustments for HP Compaq dc7600

All IRQs are auto-assigned. No manual configuration is necessary.

A
Fetal Monitor Connections

Overview

OB **TraceVue** accepts the digital signal protocol used by HP/Agilent/Philips Series 50 and Avalon FM20/FM30 Fetal Monitors. Connecting these monitors to OB **TraceVue** is detailed in Chapter 5, *New System Setup*.

You can connect many other types of fetal monitor to OB **TraceVue** but they require special cable connectors to convert their signals to the digital protocol accepted by OB **TraceVue**. This is called a Protocol Conversion Kit. When OB **TraceVue** recognizes the monitor it can accept its data and even identify the monitor model and manufacturer. Every fetal monitor connected to OB **TraceVue** requires its own protocol converter. Cables and converters supplied by Philips have full Philips support, as defined in the Integration Guide.

OB **TraceVue** supports only those features that are part of the Series 50/Avalon Fetal Monitor. If your customer has a monitor that measures parameters other than those measured by Series 50/Avalon monitors, OB **TraceVue** cannot display them.

If a third party manufacturer claims compliance with the Philips digital signal protocol, responsibility for this compliance lies with that manufacturer. Connection of any third party fetal monitor is subject to “unapproved limited support” and requires integration testing. See the Integration Guide for further details.

Conversion Kits

Protocol Conversion Kits are available for many fetal monitors. The kit consists of:

- Protocol Converter Box - to modify protocol.
- Adapter Cable to identify manufacturer.

If for any reason you customize an adapter cable, this may prevent the manufacturer's identity being transmitted accurately.

A general purpose protocol conversion kit is also available. This converts analog signals to digital but does allow OB **TraceVue** to identify the monitor type.

Protocol Converter Box

This is a small box that contains the signal protocol converter. The DIL switch settings identify the model of fetal monitor to the protocol converter.

A digital to digital converter box has a single row of DIL switches. An analog to digital converter has a double row of DIL switches. This second row specifies the voltage range and offset necessary for correct conversion.

The protocol converter connects to a serial port on an OB **TraceVue** PC using a cable fitted with 9-pin sub-D connectors.

Adapter Cable

A 250mm (10 inch) adapter cable connects the fetal monitor to the protocol converter. This cable identifies the manufacturer of the fetal monitor to the protocol converter, and is fitted at the factory with the correct connectors. The adapter cable is necessary because even monitors from the same manufacturer may use different analog protocols which means that you cannot just have a manufacturer specific converter box.

Available Protocol Conversion Kits and Cables

The following kits are available. Note that cable part numbers are printed on the cables.

Table 34-5 Protocol Conversion Kits and Cables

Monitor Type	Option No	Cabling	Replacement part number	Kit Contents
FM 2	#K10	M1380-61624	4535**63**78221	RS-232 bedside cable
HP 8040A	#K11	M1380-63201	4535**63**78231	Digital converter
		M1380-61612	4535**63**78111	RS-232 cable
		M1380-61609	4535**63**78091	8040 adapter cable
		0510-1334	4535**63**023441	(Velcro) Fastener
Series 50 IX/XM/ XMO (M1350A/B/C) (with RS232 interface only) Avalon FM20 / FM30	#K12	M1380-61612	4535**63**78111	RS-232 bedside cable
		M1380-60612	4512**61**0061	Adapter: Dsub 9 male to RJ45 female
Series 50 A/IP (M1351A/53A)	#K13	M1380-61613	4535**63**78121	RS-232 bedside cable
Corometrics 116, 118	#K21	M1380-63201	4535**63**78231	Digital converter
		M1380-61612	4535**63**78111	RS-232 cable
		M1380-61618	4535**63**78161	Corometrics digital adapter cable
		0510-1334	4535**63**023441	(Velcro) Fastener
Sonicaid Meridian 800 and Team	#K22	M1380-63201	4535**63**78231	Digital converter
		M1380-61612	4535**63**78111	RS-232 cable
		M1380-61619	4535**63**78171	Sonicaid digital adapter cable
		0510-1334	4535**63**023441	(Velcro) Fastener

Table 34-5 Protocol Conversion Kits and Cables

Monitor Type	Option No	Cabling	Replacement part number	Kit Contents
Corometrics 129 or Corometrics Series 120	#K23	M1380-61622	4535**632**78201	RS-232 bedside cable
Corometrics 111, 112, 115, 115D, 145	#K31	M1380-63202	4535**632**78241	Analog converter
		M1380-61612	4535**632**78111	RS-232 cable
		M1380-61614	4535**632**78131	Corometrics analog adapter cable
		0510-1334	4535**630**23441	(Velcro) Fastener

All settings are already adjusted at the factory.

Mounting the Protocol Converter

Find a convenient position to mount the protocol converter. The best place to mount the converter is on the fetal monitor itself, because the adapter cable and protocol converter are set to the fetal monitor type, and should remain with it. Make sure the fetal monitor's ventilation holes are not obscured and the cabling is not strained or kinked. Mount the protocol converter using the velcro patch provided.

Disconnecting a Fetal Monitor from OB TraceVue

If you need to disconnect the fetal monitor from the OB **TraceVue** PC, disconnect only one end of the RS-232 cable. It does not matter which. In this way, the adapter cable and protocol converter (if fitted) remain with the fetal monitor for which they are setup.

Data Tables for Supported Fetal Monitors

All monitors listed support C-Request, GO mode, Halt, and I/D Request. In the following tables, s means that the switch should be set to up (on). t means it should be set to down (off). X indicates that the setting is not important.

There is only one bank of DIL switches on a digital protocol converter. There are two banks of switches on an analog protocol converter. The following diagram indicates the position of the banks of DIL switches.

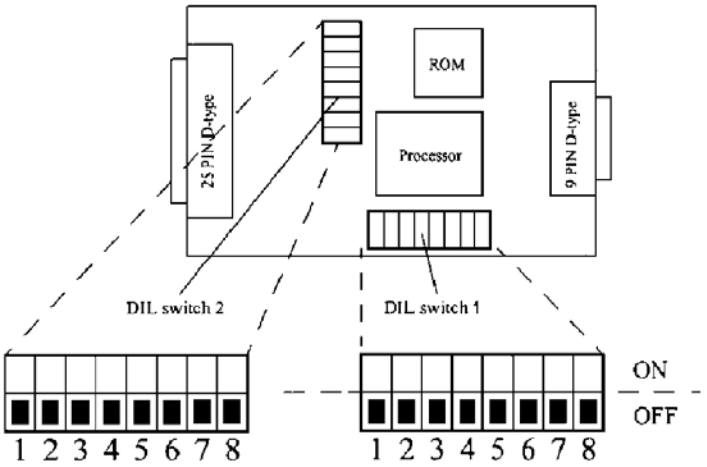


Figure 34-1DIL Switch Location

HP 8040A

Use Protocol Conversion Kit M1380D #K11.

The supported data are:

- FHR1 (red, yellow and green quality).
- FHR2 or MECG (red and green quality).
- TOCO.
- Marker pressed.
- Recorder on/off, paper speed, paper type.

Special requirements:

- Digital interface must be fitted.

Table 34-6 HP 8040A - Digital Protocol Converter DIL Switch Settings

DIL Switch Settings							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
X	X	X	X	X	X	X	X

Corometrics FM 115

Use Protocol Conversion Kit M1380D #K31.

The supported data are:

- HR1 (red and green quality).
- TOCO.
- Marker pressed.

Table 34-7 Corometrics 115 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	s	s	t	s
2	s	t	t	t	s	t	s	t

Corometrics FM 115D

Use Protocol Conversion Kit M1380D #K31.

The supported data are:

- HR1 (red and green quality).
- HR2 or MECG (red and green quality).
- TOCO.
- Marker pressed.

Table 34-8 Corometrics 115 twin (with dual HR) - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	s	s
2	s	t	s	t	s	t	t	t

Corometrics FM 116

Use Protocol Conversion Kit M1380D #K21.

The supported data are:

- HR1 (red and green quality).
- HR2 or MECG (red and green quality).
- TOCO.
- Notes; data from external maternal monitors.
- Marker pressed.

Special Requirements

- Configure the interface to 115 update mode, 9600 baud, no parity. See the service manual for the monitor for details about how to configure the interface.

Table 34-9 Corometrics 116 - Digital Protocol Converter DIL Switch Settings

DIL Switch Settings							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
X	X	X	t	t	t	s	t

Corometrics FM 118

Use Protocol Conversion Kit M1380D #K21.

The supported data are:

- HR1 (red and green quality).
- HR2 or MECG (red and green quality).
- TOCO.
- Notes; data from internal and external maternal monitors.
- Marker pressed.

Special Requirements

- Configure the interface to 115 update mode, 9600 baud, no parity. See the service manual for the monitor for details about how to configure the interface.

Table 34-10 Corometrics 118 - Digital Protocol Converter DIL Switch Settings

Switch Settings							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
X	X	X	t	t	t	s	s

Corometrics 129 / Corometrics Series 120

- The password for SERVICE mode is the current date.
- Select COMM
- There are 3 available ports - J109, J110, J111.
- Set each port to BAUDRATE = 1200, MODE = 1371/Notes
- Connect M1380-61622 (M1380D Option K23) to any of the ports listed above.

Corometrics Series 150/151

OB **TraceVue** does not support connectivity to Corometrics Series 150/151 Fetal Monitors. However, in order to provide the customer with a means of connecting these fetal monitors to OB **TraceVue**, a workaround solution has been found. The responsibility for these connections and the support of the interface between these fetal monitors and OB **TraceVue** lies solely with the customer. The customer is completely responsible for the installation, configuration, support, and costs associated with this connection.

The customer requires:

- M1380-63202 - General Purpose Analog Converter.
- M1380-61612 - RS-232 Cable.
- M1380-61614 - Corometrics analog adapter cable.

This connection also requires an external power supply. It must have the following specifications:

- Output voltage: +6V DC to +15V DC.
- Output current: 50mA minimum.
- Medical grade power cord or connection to an isolation transformer.

Several modifications must be made to the analog adapter cable (M1380-61614):

- Remove wire from pin5 at CORO-side connector.

- Connect power:
  + line to open wire
  - line to pin3
- Isolate wire connection.

Pin layout for the CORO analog I/F-cable: M1380-61614

	CORO-side 24pin CANNON	**Converter -side 25 ipn D-type**
Cable shield	shield	shield
HR1 signal	pin7	pin7
HR2 signal	pin22	pin8
TOCO	pin2	pin9
Ground	pin3	pin6
HR1 mode	pin17	pin20
HR2 mode	pin1	pin21
TOCO mode	pin24	pin22
+15V	pin5	pin17
nMarker	pin20	pin5

Connection of the CORO 150 or 151 to OB **TraceVue** requires the input to the system be RS-232. Use the J102 connector at the back of the monitor. In addition, the converter requires specific switch settings. The following describes the switch setting for the Corometrics 150 and the 151.

Corometrics FM 150

The data are:

- HR1 (red and green quality).
- HR2 (red and green quality).
- TOCO.
- Marker pressed.

Special requirements:

- A separate, locally sourced, power supply is required for the protocol Converter. You need to modify the adapter cable to fit the interface connector of the Corometrics monitor. See “General Purpose Kit” on page A-17.

Table 34-11 Corometrics 150 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	s	t
2	s	t	s	t	s	t	t	t

Corometrics FM 151

The data are:

- HR1 (red and green quality).
- HR2 or MECG.
- TOCO.
- Marker pressed.

Special requirements:

- A separate, locally sourced, power supply is required for the protocol converter. You need to modify the adapter cable to fit the interface connector of the Corometrics monitor. See “General Purpose Kit” on page A-17

Table 34-12 Corometrics 151- Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	t	s
2	s	t	s	t	s	t	t	t

Corometrics FM 145

Use Protocol Conversion Kit M1380D #K31.

The data are:

- HR1 (red and green quality).

- TOCO.

Table 34-13 Corometrics 145- Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	s	s	s	t
2	s	t	t	t	s	t	s	t

Corometrics FM 112

Use Protocol Conversion Kit M1380D #K31.

The supported data are:

- HR1 (red and green quality).
- TOCO.

Table 34-14 Corometrics 112 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	s	s	s	t	t
2	s	t	t	t	s	t	s	t

Corometrics FM 111

Use Protocol Conversion Kit M1380D #K31.

The supported data are:

- HR1 (red and green quality).
- TOCO.

Table 34-15 Corometrics 111 - Analog Protocol Converter DIL Switch

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	s	s	s	s	s
2	s	t	t	t	s	t	s	t

Sonicaid Meridian 800

Use Protocol Conversion Kit M1380D #K22.

The supported data are:

- HR1.
- HR2 or MECG (red and green quality).
- TOCO.
- Marker pressed.
- Recorder on/off, paper speed, paper type.

Table 34-16 Sonicaid Meridian 800 - Digital Protocol Converter DIL Switch Settings

Switch Settings							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
X	X	X	t	t	t	t	s

Sonicaid TEAM

Use Protocol Conversion Kit M1380D #K22.

The supported data are:

- HR1.
- HR2 or MECG (red and green quality).
- TOCO.
- Marker pressed.
- Recorder on/off, paper speed, paper type.

.

Table 34-17 Sonicaid TEAM - Digital Protocol Converter DIL Switch Settings

Switch Settings							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
X	X	X	t	t	t	s	t

Toitu MT332

The supported data are:

- HR1 (red and green quality).
- TOCO.

Special Requirements

- Analog Interface required.
- Locally resourced power supply.
- You need to wire the following signals to the appropriate pins on the Toitu interface connector. See the Toitu manual for the pinouts for the appropriate connector:
  - Hr1_sig
  - Toc_sig
  - GND

See Table 23-22, “25-pin sub D-type Connector to Protocol Converter - Analog Versions,” on page A-20.

- Modify the adapter cable to fit the interface connector of the monitor. See “General Purpose Kit” on page A-17.

Table 34-18 Toitu MT332 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	t	s
2	t	t	t	t	t	t	s	t

Toitu MT333

The supported data are:

- HR1 (red and green quality).
- TOCO.

Special Requirements

- Analog Interface required.
- Locally resourced power supply.

- You need to wire the following signals to the appropriate pins on the Toitu interface connector. See the Toitu manual for the pinouts for the appropriate connector:
  - Hr1_sig
  - Toc_sig
  - GND

See Table 23-22, “25-pin sub D-type Connector to Protocol Converter - Analog Versions,” on page A-20.

- Modify the adapter cable to fit the interface connector of the monitor. See “General Purpose Kit” on page A-17.

Table 34-19 Toitu MT333 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	s	t
2	t	t	t	t	t	t	s	t

Toitu MT430

The supported data are:

- HR1 (red and green quality).
- HR2 (red and green quality).
- TOCO.

Special Requirements

- Analog Interface required.
- You need to wire the following signals to the appropriate pins on the Toitu interface connector. See the Toitu manual for the pinouts for the appropriate connector:
  - Hr1_sig
  - Hr2_sig
  - Toc_sig
  - +V in
  - GND

See Table 23-22, “25-pin sub D-type Connector to Protocol Converter - Analog Versions,”

on page A-20.

Note that the protocol converter can draw its power from the MT430 and therefore does not require a locally resourced power supply (unlike the other Toitu monitors mentioned above).

Table 34-20 Toitu MT430 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	s	t	t
2	t	t	t	t	t	t	t	t

AMS / Litton / PPG/ Kranzbuehler AM66 / IM76 / FM670

Use Protocol Conversion Kit M1380D #K32.

The supported data are:

- HR1 (red and green quality).
- TOCO.

Special Requirements

- The monitor must have an analog interface, with the option "USA".

Table 34-21 AMS / Litton / PPG / Kranzbuehler AM66 / IM76 / FM670 - Analog Protocol Converter DIL Switch Settings

DIL Switch	Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	t	s
2	s	t	t	t	s	t	s	t

General Purpose Kit

If you need to connect a fetal monitor that is not listed in the data tables above, you will need a general purpose kit. This provides for an analog to digital conversion, where the analog signal protocol can be sufficiently defined.

1. Consult technical marketing to check whether this type of fetal monitor has ever been successfully connected to OB **TraceVue**. If so, you will be provided with instructions. If not, you must take the measurements necessary to define the analog signal protocol used before instructions can be provided.
2. Modify the adapter cable specified in any or all of the following ways:
   a. Locally source, and fit an appropriate connector to the adapter cable for the fetal monitor.
   b. Modify the male connector to the protocol converter to accept the output from a separate, locally sourced, power supply (and isolation transformer).
   Refer to “Power Supply” on page A-18
   c. Code the male connector of the adapter cable to the protocol converter UNIV1 (1000 - bipolar protocol) or UNIV2 (1001 - unipolar protocol).
   Refer to “Customizing Adapter Cables” on page A-18
3. Set up the protocol converter.
   a. Set DIL switches as instructed. These depend on the definition of the fetal monitor signal protocol.
   Refer to “Setting Up the Converter” on page A-18
   b. Load any of resistor pairs R107 and R108 (heart rate 1); R109 and R110 (heart rate 2); and R111 and R112 (TOCO) to adjust input voltage ranges, using values as instructed.
4. Validate the protocol conversion using FM Spy.
   Refer to “Fetal Monitor Spy (FMSpy)” on page 12-6
5. Mount the protocol converter, and connect it to OB **TraceVue**.

Customizing Adapter Cables

The adapter cable in the general purpose kit cannot identify the manufacturer of the fetal monitor. However, you must customize the cable so that it has a manufacturer "identity" of either UNIV1 for bipolar analog signal or UNIV2 for an analog unipolar signal.

The identity is signified by a four character binary code. The code is formed by bridging between PINs 10 to 13 and GND (PINs 23 to 25) in the 25-pin sub D-type male connector to the protocol converter.

PIN coding	Identity
1000	UNIV1 (bipolar)
1001	UNIV2 (unipolar)

Coding the Identity Code a "0" by bridging the pin to GND

Code a "1" by leaving open, or snipping out, an existing bridge.

Fitting the General Purpose Protocol Conversion Kit

Power Supply Typically power is drawn from the fetal monitor. However, some monitors require a separate, locally sourced power supply that must deliver 6 to 15 VDC, 30 mA, and either conform to medical grade standards, or be powered via an isolation transformer, such as the one available in #K51.

If the PC is located at the bedside, any protocol converter (not just locally sourced) must also be connected to the isolation transformer. To connect the power feed, modify the adapter cable's 25-pin sub D-type male connector to the protocol converter: +Vin to PIN 17; GND to PINs 23, 24 or 25.

Setting Up the Converter

1. Remove the four screws on the top of the cover.
2. Remove the cover.
3. The protocol converter software is held in ROM. If this ROM is mounted in a socket, ensure the latest version of the ROM is fitted, and that the ROM is seated correctly.
4. Ensure the settings of the DIL switches inside the protocol converter are correct.
5. Replace the cover.
6. Replace the four screws in the cover.

Adapter Cable Pin Assignments

Table 34-22 25-pin sub-D Connector to Protocol Converter - Digital Versions

PIN	Signal Name	Remarks
1		
2	TxD	Standard RS-232 transmit
3	RxD	Standard RS-232 receive
4	RTS	Standard RS-232
5	CTS	Standard RS-232
6	DSR	Standard RS-232
7	GND	Standard RS-232
8	DCD	Standard RS-232
9		
10	Code 1	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
11	Code2	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
12	Code3	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
13	Code 4	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
14	Tx +	20mA current loop transmit output
15	GND	
16	Rx +	20mA current loop receive input
17	+V in	+5V to +15V. Power supply for protocol converter.
18		
19		
20	DTR	Standard RS-232
21		
22	RI	Standard RS-232
23	GND	
24	GND	
25	GND	

Table 34-23 25-pin sub D-type Connector to Protocol Converter - Analog Versions

PIN	Signal Name	Remarks
1	PEN1	Digital CMOS active high
2	nPEN1	Digital CMOS active low
3	PEN2	Digital CMOS active high
4	nPEN2	Digital CMOS active low
5	DIG in	Reserved digital CMOS input
6	GND	
7	Hr1_Sig	-1.2V to +2.4V analog input
8	Hr2_Sig	-1.2V to +2.4V analog input
9	Toco_Sig	-1.2V to +10V analog input
10	Code 1	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
11	Code2	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
12	Code3	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
13	Code 4	Bridge to GND (PINs 23 to 25) to code 0, open to code 1
14	GND	
15		
16		
17	+V in	+5V to +15V. Power supply for protocol converter.
18		
19		
20	Hr1_Mode	-10V to +10V analog mode input
21	Hr2_Mode	-10V to +10V analog mode input
22	Toco_Mode	-10V to +10V analog mode input
23	GND	
24	GND	
25	GND	

Notes

Use this space to record the information given by the Technical Marketing Engineer who will help you use the General Purpose kit if you are connecting a fetal monitor not specified in the data tables above. Record the DIP switch settings provided in the table below. If you need more than one copy of the table, please photocopy it. Write the name and manufacturer of the fetal monitor onto the table. Keep this for your future reference.

Table 34-24 General Purpose Analog Protocol Converter DIL Switch Settings

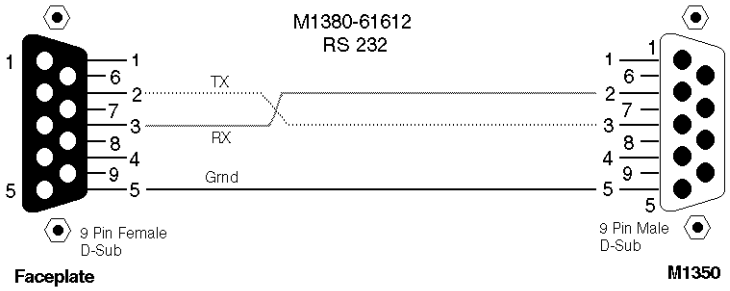
Fetal Monitor								
DIL Switch	**Switch Settings**							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	X	X	X	t	t	t	t	
2								

Cable Pin Layout

Fetal Monitor Cable for M1350A/B/C, and Avalon FM20/30 M1380-61612

Connection between fetal monitor and PC/wall plate or between converter box and PC/wall plate.

Figure 34-1 M1380-61612 Cable for M1350A/B/C and Avalon Fetal Monitors

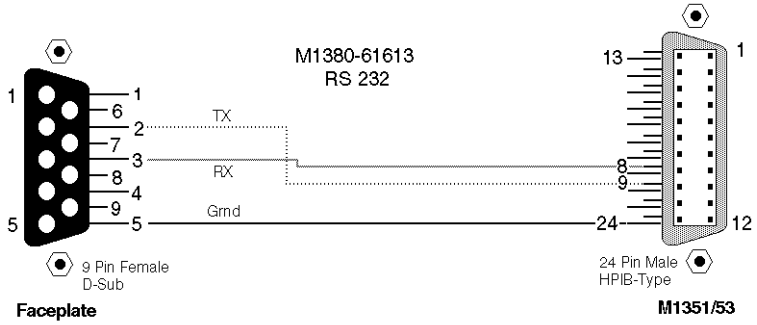


9 Pin Female	9 Pin Male
2	3
3	2
5	5

Fetal Monitor Cable for M1351/53 M1380-61613

Connection between fetal monitor M1351/53 and PC/wall plate.

Figure 34-2 M1380-61613 Cable for M1351/53 Fetal Monitor



9 Pin Female	24 Pin HPIB
2	9
3	8
5	24

Connecting CORO129

The cable that is option M1380D #K23 let you connect CORO 120 directly to OB **TraceVue**. No converter box is necessary. Note that the CORO 120 must be configured to send M135x fetal monitor protocol.

Index

A

Access rights
  directories, 3-3
  modifying, 3-6
  shares, 3-4
  tools, 3-5
Adapter cable
  pin assignments (protocol converter), 35-19
  protocol converter, 35-2
Additional drivers, 17-3
Additional memory, 12-2
Admin tool for internal database, 14-7
Admission Discharge Transfer, see ADT
ADT interface
  setup, 16-5
Agilent Series 50 monitors
  See Series 50 monitors
AMS
  protocol converter, 35-16
Archive disk
  care for, 8-3
Auto login
  interrupting, 3-6
  setup, 16-8
Autochanger
  see Optical medium changers, 12-12
Automatic configuration
  storage, 17-10
Avalon fetal monitor, protocol conversion, 6-4

B

Backup
  configuration, 15-20
Backup Tape Drive, 12-16
BADFILE.TXT, 15-26
Battery
  replacement in client UPS, 8-1
  replacement in server UPS, 8-1
BIOS
  Settings, 17-4
    Compaq Evo D510, 27-3
    Compaq ProLiant ML370 G2, 29-3
    HP Compaq D530, 28-3
    HP Compaq dc7100, 33-3
    HP Compaq dc7600, 34-3
    HP Kayak XA, 22-4
    HP Kayak XU, 23-4
    HP Netserver LC2000, 26-4
    HP ProLiant ML350 G4, 31-3
    HP ProLiant ML350 G4P, 32-3
    HP ProLiant ML370 G3, 30-3
    HP Vectra VL400, 24-3
    HP Vectra VL420, 25-3
  Version, 17-4
    Compaq Evo D510, 27-3
    Compaq ProLiant ML370 G2, 29-3
    HP Compaq D530, 28-3
    HP Kayak XA, 22-4
    HP Kayak XU, 23-4
    HP Netserver LC2000, 26-4
    HP ProLiant ML350 G4, 31-3
    HP ProLiant ML350 G4P, 32-3
    HP ProLiant ML370 G3, 30-3
    HP Vectra VL400, 24-3
    HP Vectra VL420, 25-3
  when to flash, 12-2
Boot disk, 17-2

C

C drive, see primary hard disk drive, 12-5
Cabinet for optical disk drives, 12-14
Cables
  length limits, 6-11
  100Base-FX, 6-11
  100Base-TX, 6-11
  10Base-T, 6-11
  RS-232, 6-11
  serial port server, 6-11
Cabling
  Specifications, 6-11
  Fetal monitor, 2-16
  LAN, 6-13
  M1380-16613 fetal monitor cable for M1351/53, 35-22
  M1380-61612 fetal monitor cable for Avalon FM20/30, 35-22
  M1380-61612 fetal monitor cable for M1350A/B/C, 35-22
  PC, 2-16
  pin assignment fetal monitor cable for M1350A/B/C, 35-22
  pin assignment fetal monitor cable for M1351/53, 35-22
  safety, 2-16
  testing network cables, 6-12
  wall, 4-7
Cart mount
  moving, 6-2
  power supplies, 6-1
Cascading Hubs, 6-9
Cat 5 Cable Specification, 6-12
CCOW applications, 5-23
CD ROM drive
  installation, 12-5
Centralized implementation, 2-3, 4-2
Changing PC name
  client, 13-1
  server, 13-1
Checklist
  internal server installation, 5-3
  standalone PC installation, 5-4
  external server installation, 5-5
  WEB/Terminal server installation, 5-7
  client installation (data acquisition), 5-9
  client installation (no data acquisition), 5-11
Client
  configuring, 5-24, 5-26
  connecting UPS, 5-16
  defining number of clients during setup, 16-5
  installation checklist (data acquisition), 5-9
  installation checklist (no data acquisition), 5-11
  memory requirements, 18-6
  shell autostart with A.02.00, 16-8
  UPS, 6-1
  Windows new installation, 17-6
Compaq Array Configuration Utility software, 15-36
Compaq Evo D510 PC
  BIOS settings, 27-3
  BIOS version, 27-3
  configuration, 27-3
  IDE configuration, 27-4, 28-4
  interrupts, 27-5
  lightpen settings, 27-2
  removing the PC cover, 27-1
  RS-232 card settings, 27-2
  SCSI BIOS, 27-5
  slot assignments, 27-2
  soundcard settings, 27-2
  specifications, 27-1
Compaq Insight management software, 9-9
Compaq ProLiant ML370 G2 PC
  BIOS settings, 29-3
  BIOS version, 29-3
  configuration, 29-3
  interrupts, 29-3
  RAID settings, 29-2
  removing the PC cover, 29-1
  SCSI BIOS, 29-3
  slot assignments, 29-1

specifications, 29-1
Component Installation, 17-20
2nd NIC, 17-20
additional RS-232, 17-26
light pen, 17-26
SCSI host adapter, 17-26
UPS software, 17-28
Computer Management, 14-1
CONFIG.TXT file, 10-1
Configuration
Hardware, 17-29
IDE hard disks, 17-29
optical disk drives, 17-29
optical medium changers, 17-30
SCSI hard disks, 17-29
Patient search tool, 6-19
PCs
Compaq Evo D510, 27-3
Compaq ProLiant ML370 G2, 29-3
HP Compaq D530, 28-3
HP Compaq dc7100, 33-3
HP Compaq dc7600, 34-3
HP Kayak XA, 22-4
HP Kayak XU, 23-4
HP Netserver LC2000, 26-4
HP ProLiant ML350 G4, 31-3
HP ProLiant ML350 G4P, 32-3
HP ProLiant ML370 G3, 30-3
HP Vectra VL400, 24-3
HP Vectra VL420, 25-3
Serial Port Server
5210 / 5410 / 5610, 6-31
DE-303 / DE-304 / DE-308, 6-29
Configuration backup, 15-20
offline backup, 15-21
online backup, 15-20
reload, 15-21
to optical disk (server with archiving only), 15-20, 15-21
Configuration record
CONFIG.TXT, 10-1
printing, 5-29
storing, 5-34
Control Panel, 14-1
Conventions
caution, 1-3
note, 1-3
warning, 1-3
Conversion kits, 35-1
Corometrics
129, 35-8
FM 111, 35-12
FM 112, 35-12
FM 115, 35-6
FM 115D, 35-6
FM 116, 35-7
FM 118, 35-7
FM 145, 35-10
FM 150, 35-9
FM 151, 35-10
Series 150, 35-8
Creating a printer, 6-42
Customer acceptance procedures, 2-5
Customer verification, 10-1

D

D530, see HP Compaq D530
Data access
software engineering for 3rd party access, 5-23
Data acquisition
problems, 7-6
Database
admin tool for external database, 14-7
admin tool for internal database, 14-7
administration tools, 14-7
importing data from multiple A.01.xx disks, 15-29
regular maintenance, 8-1
Database rebuild tool, 14-8
Database repair
optical disk recovery, 15-16
patient file validation, 15-16
validation, 15-15
dc7100, see HP Compaq dc7100
dc7600, see HP Compaq dc7600
DCOM service, 9-2
Decentralized implementation, 2-2, 4-2
Defects
hardware, 11-1
software media, 11-3
De-installing driver (PowerChute), 12-19
DHCP
disable for 2nd NIC, 17-24
server configuration, 17-10, 17-15
DiagTools, 14-19
for which PC?, 14-19
starting, 14-19
using, 14-19
Disk copy
optical disk test tool, 15-24
DISK_ID.DSK, 12-20
Display
connecting, 5-14
specifications, 4-5
DLC protocol
installation, 6-43
Documentation, 4-11
Drive letters, 17-17

E

Earth Terminal symbol, 2-1
Electrostatic handling precautions, 2-17
Emergency boot floppy disk
see boot disk
Equipotential Terminal symbol, 2-1
Error log files
recommended maintenance, 8-1
Error messages
RFO, 15-33
Event viewer, 14-1
Evo D510, see Compaq Evo D510
Excel
see Microsoft Excel
External database
backup, 12-16
defining at setup, 16-6
External database admin tool, 14-3
External database server
backup device, 12-16
installation checklist, 5-5
memory requirements, 18-5
Windows new installation, 17-6

F

Faceplates, 4-7
Fax
setting up, 6-47
fetal monitor

cabling, 2-16
Fetal monitors
cable for M1350A/B/C, 35-22
cable for M1351/53, 35-22
connecting, 5-18, 6-3
connecting four monitors, 6-4
connection, 17-18, 35-1
connection problems, 7-6
conversion kits, 35-1
data tables for types supported, 35-4
disconnecting from PC, 35-3
general purpose conversion kit, 35-17
HP 8040A, 35-4
M1350A, 6-6
M1350B, 6-6
M1351/53, 6-5
protocol converter kits, 35-2
signal protocols, 17-18, 35-1
system limitations, 4-8
types supported, 35-2
File
Log files, 9-6
AGENT_xxx.txt, 15-18
BADFILE.TXT, 15-26
BADPAT.TXT, 15-27
CONFIG.TXT, 10-1
DifferentIdsForSingleRecord.TXT, 15-18
DISKTOOL.LOG, 15-24
GOODFILE.TXT, 15-26
GOODPAT.TXT, 15-27
InconsistentPregnancyStatus.txt, 15-19
LinkRecoverMaster_LOG.TXT, 15-18, 15-19
MISSING.TXT, 15-26
MultipleOpenEpisodes.TXT, 15-18
NotClosedPregnancies.txt, 15-19
OverduePatientRecords.txt, 15-19
PatStates.txt, 15-19
RecoveryMonitor.txt, 15-19
RFOWIZ.TXT, 15-32
SameIdsForDifferentRecords.TXT, 15-18
UNREFERENCED.TXT, 15-26
File system check
optical disk test tool, 15-25
Firewall, System Overview tool configuration, 9-2
Flashing
BIOS, 12-2
Floppy disk drive
disabling, 5-30
unlocking/locking, 12-1
FM670
protocol converter, 35-16
FMSpy, 14-14
closing, 14-14
digital interpretation, 14-15
monitor data, 14-15
port initialization, 14-15
starting, 14-14
using, 14-14
Functionality test, 5-28

G

GETLOG.BAT, 14-20

H

Hard disk
creating a partition, 12-6
IDE, 12-8
secondary hard disk, 12-8
Hardware
components, 4-4
defects, 11-1
installing, 3-1, 6-1
PC specifications, 4-4
problems, 7-4
replacement parts, 11-1
HIS, 4-1
HL7
setting up, 5-23
Hospital Information System, see HIS
Host adapter
SCSI, 12-7
HP 8040A protocol converter, 35-4
HP Array Configuration Utility software, 15-36
HP Compaq D530 PC
BIOS settings, 28-3
BIOS version, 28-3
configuration, 28-3
interrupts, 28-5
lightpen settings, 28-2
removing the PC cover, 28-1
RS-232 card settings, 28-2
SCSI BIOS, 28-5
slot assignments, 28-2
soundcard settings, 28-2
specifications, 28-1
HP Compaq dc7100 PC
BIOS settings, 33-3
configuration, 33-3
removing the PC cover, 33-1
specifications, 33-1
HP Compaq dc7600 PC
BIOS settings, 34-3
configuration, 34-3
removing the PC cover, 34-1
specifications, 34-1
HP Insight management software, 9-9
HP Kayak XA
BIOS settings, 22-4
BIOS version, 22-4
configuration, 22-4
how to change the BIOS, 22-4
lightpen settings, 22-3
removing the PC cover, 22-1
RS-232 card settings, 22-3
SCSI BIOS, 22-9
secondary hard disk drive (SCSI), 12-9
slot assignments, 22-2
soundcard settings, 22-3
HP Kayak XU
BIOS settings, 23-4
BIOS version, 23-4
configuration, 23-4
lightpen settings, 23-3
removing the PC cover, 23-1
RS-232 card settings, 23-3
SCSI BIOS, 23-9
SCSI BIOS settings, 23-9
secondary hard disk drive (SCSI), 12-9
slot assignments, 23-2
soundcard settings, 23-3
specifications, 23-1
HP NetRaid Assistant software, 15-35
HP Netserver LC2000, 26-1
BIOS settings, 26-4
BIOS version, 26-4
configuration, 26-4
interrupts, 26-6
RAID configuration, 26-3
removing the PC cover, 26-1
SCSI BIOS, 26-5
SCSI BIOS (LC2000 U3), 26-5
slot assignments, 26-2
specifications, 26-1
HP Netserver LC2000 U3

BIOS version, 26-4
HP ProCurve 10/100 Hub 12
see Hub 12
HP ProCurve 10/100 Hub 24
see Hub 24
HP ProCurve Switch 2224
see Switch
HP ProLiant ML350 G4
SCSI BIOS, 31-4
HP ProLiant ML350 G4 PC
BIOS settings, 31-3
BIOS version, 31-3
configuration, 31-3
interrupts, 31-4, 32-4
RAID settings, 31-2
removing the PC cover, 31-1
slot assignments, 31-1
specifications, 31-1
HP ProLiant ML350 G4P
SCSI BIOS, 32-4
HP ProLiant ML350 G4P PC
BIOS settings, 32-3
BIOS version, 32-3
configuration, 32-3
RAID settings, 32-2
removing the PC cover, 32-1
slot assignments, 32-1
specifications, 32-1
HP ProLiant ML370 G3 PC
BIOS settings, 30-3
BIOS version, 30-3
configuration, 30-3
interrupts, 30-3
RAID settings, 30-2
removing the PC cover, 30-1
SCSI BIOS, 30-3
slot assignments, 30-1
specifications, 30-1
HP Series 50 monitors
See Series 50 monitors
HP Top Tools management software, 9-8
HP Vectra VL400
BIOS settings, 24-3
BIOS version, 24-3
configuration, 24-3
IDE configuration, 24-4
interrupts, 24-4
lightpen settings, 24-2
removing the PC cover, 24-1
RS-232 card settings, 24-2
SCSI BIOS settings, 24-4, 25-4
slot assignments, 24-2
soundcard settings, 24-2
specifications, 24-1
HP Vectra VL420
BIOS settings, 25-3
BIOS version, 25-3
configuration, 25-3
IDE configuration, 25-4
interrupts, 25-4
lightpen settings, 25-2
removing the PC cover, 25-1
RS-232 card settings, 25-2
SCSI BIOS, 24-4, 25-4
slot assignments, 25-2
soundcard settings, 25-2
specifications, 25-1
Hub
cascading, 6-9
connecting a PC to a, 6-14
Hub 12, 6-8
Hub 16U, 6-8
Hub 24, 6-8
Hub 8U, 6-8
supported with OB TraceVue, 6-8

I

IDE configuration
Compaq Evo D510, 27-4, 28-4
HP Compaq dc7100, 33-4
HP Compaq dc7600, 34-4
HP Vectra VL400, 24-4
HP Vectra VL420, 25-4
IDE hard disk, 12-8
IM76
protocol converter, 35-16
Incoming connection, 6-49
Input Locale, 17-18
inspection matrix, see Test and Inspection matrix
install.txt, see also Installation Record, 14-14
Installation
check shipment, 5-13
client UPS, 5-16
connect 2nd network card, 5-19
connect modem, 5-19, 5-21
connect to network, 5-18
display, 5-14
external server UPS, 5-16
fetal monitors, 5-18
functionality test, 5-28
isolation transformer, 5-17
keyboard and mouse, 5-14
light pen, 5-14, 17-26
OB TraceVue software, 16-4
optical disk drive cabinet, 5-14
Optical medium changers, 12-12
power switch cover, 5-34
put equipment in place, 5-13
remote client, 6-16
retrieve drive, 5-15
safety tests, 5-28
serial port server software (5210 / 5410 / 5610), 6-28
serial port server software (DE-303 / DE-304 / DE-308), 6-28
server UPS, 5-15
set timezone and local time, 5-21
set up OB TraceVue to work with CCOW applications, 5-23
set up soundcard, 5-20
software engineering for 3rd party data access, 5-23
storage drive, 5-14, 5-15
switch on PC, 5-20
touchscreen driver, 5-20
UPS, 5-15
virus protection software, 8-4
voltage selection switch, 5-13
warning label, 5-34
Web terminal server UPS, 5-16
Installation checklist
internal server, 5-3
standalone PC, 5-4
external server, 5-5
WEB/Terminal server, 5-7
client (data acquisition), 5-9
client (no data acquisition), 5-11
Installation record
install.txt, 14-14
printing, 5-29

Interfaces, 4-10
Internal database admin tool, 14-7
  functionality, 14-7, 14-8
  when to use, 14-3
Internal server
  C drive, 12-5
  CD-ROM drive, 12-5
  configuring, 5-24
  connecting UPS, 5-15
  how to change PC name, 13-1
  installation checklist, 5-3
  memory requirements, 18-4
  SCSI host adapter, 12-7
  Windows new installation, 17-6
International Caution symbol, 2-1
Interrupting Auto Login, 3-6
Interrupts
  Compaq Evo D510, 27-5, 28-5
  Compaq ProLiant ML370 G2, 29-3
  HP Netserver LC2000, 26-6
  HP ProLiant ML350 G4, 31-4, 32-4
  HP ProLiant ML370 G3, 30-3
  HP Vectra VL400, 24-4
  HP Vectra VL420, 25-4
IP Address
  DHCP server, 17-15
  if hospital uses same address range, 17-25
  second NIC, 17-23
  serial port server, 6-26
  serial port server host PC, 6-24
  servers for remote LAN clients, 17-24
Isolation transformer, 4-8
  connecting, 5-17
  connecting to UPS, 5-17
  safety when connecting a PC, 2-16
  with UPS in patient vicinity, 2-4

J
JetDirect card
  using, 6-43
Jukebox
  see Optical medium changers, 12-12

K
Keyboard
  connecting, 5-14
Kranzbuehler AM66
  protocol converter, 35-16

L
LAN
  see network
LAN card, see Network I/F card, 12-4
Language
  define system language (OB TraceVue setup), 16-7
License
  balancing (WEB/Terminal server), 5-31
  OB TraceVue, 21-4
  storing, 5-34
  Windows, 21-4
Lightpen, 17-26
  connecting, 5-14
  settings for Compaq Evo D510, 27-2
  settings for HP Compaq D530, 28-2
  settings for HP Kayak XA, 22-3
  settings for HP Kayak XU, 23-3
  settings for HP Vectra VL400, 24-2
  settings for HP Vectra VL420, 25-2
Lightpen interface board
  M1370-66510, 12-2
Limitations
  cascading Hubs, 6-9
  RFO tool, 15-28
Limitations, see System Limitations
Link
  see OBTV to OBTV link
Link recovery tool, 15-17
  log files, 15-18
  using, 15-18
Litton
  protocol converter, 35-16
Local Data Recovery tool, 15-13
  recovery process, 15-14
  using, 15-13
Locale, 17-18
Log files, 9-6
  available logs, 14-13
  GETLOG.BAT, 14-20
  link recovery tool, 15-18
  local data recovery tool, 15-13
  optical disk test tool, 15-24
  path, 14-13
  RFO, 15-32
  tool to collect all available log files (GETLOG.BAT), 14-20
LogFile Viewer, 14-12
  displaying second Log, 14-12
  message time and date, 14-12
  starting, 14-12
  using, 14-12
Loudspeaker, 12-3

M
M1350A, 6-6
  cable pin assignment, 35-22
M1350B, 6-6
  cable pin assignment, 35-22
M1350C
  cable pin assignment, 35-22
M1351
  cable pin assignment, 35-22
M1351/53 fetal monitor, 6-5
M1353
  cable pin assignment, 35-22
M1370-66510, 12-2
M1380-16612
  fetal monitor cable for M1350A/B/C pin assignment, 35-22
M1380-16613
  fetal monitor cable for M1351/53 pin assignment, 35-22
M1380-66501, 12-4
M1380-66502, 12-7
M1392D
  OBMS Copy and Retrieval Station, 4-10
Macro security, 6-52
Maintenance
  checking the internal database, 8-1
  client UPS, 8-1
  error log files, 8-1
  optical disk drive, 8-1
  optical disks, 8-1
  recommended, 8-1
Management Software
  HP / Compaq Insight, 9-9
  HP Top Tools, 9-8
Manual
  organization, 1-1
  readership, 1-1
Memory
  additional, 12-2
  requirements, 18-4
    client, 18-6
    external database server, 18-5
    internal server, 18-4
    Web/Terminal server, 18-5
Metron safety tester, 2-11

Microsoft
Excel
Installation, 6-50
template installation, 6-53
updating templates (prior to B.00.00), 19-26
upgrading templates, 19-24
Office, 6-50
Installation, 6-50
Macro security, 6-52
Word
Installation, 6-50
template installation, 6-53
upgrading templates, 19-24
Mobile client
shutting down, 6-2
Modem
connecting, 5-19, 5-21
incoming connection, 6-49
installing (Windows 2000), 6-48
outgoing connection, 6-48
system limitations, 4-9
Mouse
connecting, 5-14
Muting a PC, 12-3

N

Network
specifications, 6-9
cable specifications, 6-11
cable testing, 6-12
cabling a LAN, 6-13
connecting, 5-18, 6-8
connecting 2nd network card, 5-19
connecting 3 hubs to a switch, 6-13
connecting a PC to a hub, 6-14
connecting a PC to a switch, 6-14
connecting the PC to the LAN cable, 6-13
errors, 7-3
examples with 2 hubs, 6-13
installing a printer, 6-43
printing, 6-43
problems, 7-3
security, 5-28
serial port server settings, 6-26
supported hubs, 6-8
supported switches, 6-8
system description, 4-10
wall cable types, 6-11
with switch, 6-9
without switch, 6-9
Network I/F card
installing, 12-4
Network verification, 2-16
Number of hubs, 6-9

O

OB TraceVue
configuring at client PCs, 5-27
Configuring at Internal Server PC, 5-27
definition, 1-1
documentation, 4-11
installing the software, 16-4
license updates, 21-4
reinstalling, 16-1
starting, 5-27
tools, 14-7
uninstalling, 16-10
OB TraceVue CD ROM, 17-1
OB TraceVue Setup, 16-2
OB TraceVue shell
installing at setup, 16-8
OBMS Retrieve Kit, 4-10
OBTV to OBTV link, 16-5
Office 2003
see Microsoft Office
Offline backup tool, 14-4
Optical disk
care, 8-3
care for archive disk, 8-3
care for retrieve disk, 8-3
cleaning kit, 8-4
recommended maintenance, 8-1
test tool, 15-22
Optical disk drive, 12-11
cabinet, 12-14
care, 8-3
connecting archive drive, 5-14, 5-15
connecting retrieve drive, 5-15
installing a retrieve drive, 21-3
SCSI ID, 17-29
supported drive combinations, 4-5
Optical disk drive cabinet, 12-14
installing, 5-14
Optical disk recovery process, 15-23
Optical disk test tool, 15-22
archive file check, 15-26
BADFILE.TXT, 15-26
BADPAT.TXT, 15-27
checking patient data, 15-27
disk copy, 15-24
error log, 15-24
file system check, 15-25
GOODFILE.TXT, 15-26
GOODPAT.TXT, 15-27
log file, 15-24
low level check, 15-24
MISSING.TXT, 15-26
progress and status, 15-24
recovery process, 15-23
requirements, 15-22
UNREFERENCED.TXT, 15-26
using, 15-23
Optical drives
SCSI cable lengths, 12-11
Optical medium changer, 12-12
Installation, 12-12
SCSI cable lengths, 12-13
SCSI ID, 17-30
Windows device driver installation, 17-27
Outgoing connection, 6-48
overview of all PCs, 9-2

P

Parallel printing, 6-41, 6-42
Partition
creating a, 12-6
Parts, 11-4
hardware, 11-3
how to obtain replacement parts, 11-4
software media, 11-3
Password
for change system options during setup, 16-5
Patient safety, 2-1
Patient search tool, 6-19
PC
cabling, 2-16

Compaq Evo D510, 27-1
Compaq ProLiant ML370 G2, 29-1
HP Compaq D530, 28-1
HP Compaq dc7100, 33-1
HP Compaq dc7600, 34-1
HP Kayak XA, 22-1
HP Kayak XU, 23-1
HP Netserver LC 2000, 26-1
HP ProLiant ML350 G4, 31-1
HP ProLiant ML350 G4P, 32-1
HP ProLiant ML370 G3, 30-1
HP Vectra VL400, 24-1
HP Vectra VL420, 25-1
power consumption, 2-4
specifications, 4-4
supported PCs, 18-2
PC Management Software
HP / Compaq Insight, 9-9
HP Top Tools, 9-8
PC Name, 13-1
how to rename a client PC, 13-1
how to rename a server PC, 13-1
PC serial number, 13-1
PC system board
replacement, 12-2
PCI RS-232 card
see RS-232 card
Performance monitor, 14-1
Performance tests
RS-232, 2-8
RS232, 2-9
software, 2-7
UPS, 2-9
Philips Series 50 monitors
See Series 50 monitors
Port server
see Serial port server
Port settings
defining at setup, 16-6
Power consumption, 2-4
Power supply
protocol converter, 35-18
Power switch cover, 5-34
PowerChute
de-installing, 12-19
PPG
protocol converter, 35-16
Primary hard disk drive
installation, 12-5
Printer, 6-41
creating, 6-42
creating a network printer, 6-43
installing a network printer, 6-43
network port, 6-43
parallel port, 6-42
protocol settings, 6-43
using an HP JetDirect Card, 6-43
Printer Configuration Menu, 6-43
Printing
configuration record, 5-29
installation record, 5-29
ProLiant G2
see Compaq ProLiant ML370 G2
ProLiant G3
see HP ProLiant ML370 G3
ProLiant G4
see HP ProLiant ML350 G4
see HP ProLiant ML350 G4P
Protocol conversion
overview, 6-4
converter box, 35-1
kit description, 35-1
Protocol converter
adapter cable, 35-2
AMS, 35-16
Corometrics FM 111, 35-12
Corometrics FM 112, 35-12
Corometrics FM 115, 35-6
Corometrics FM 115D, 35-6
Corometrics FM 116, 35-7
Corometrics FM 118, 35-7
Corometrics FM 145, 35-10
Corometrics FM 150, 35-9
Corometrics FM 151, 35-10
customizing adapter cables, 35-18
DIL switches, 35-4, 35-5
disconnecting, 35-3
fitting, 35-18
FM670, 35-16
general purpose kit, 35-17
HP 8040A, 35-4
IM76, 35-16
kits available, 35-2
Kranzbuehler AM66, 35-16
Litton, 35-16
mounting, 6-4, 35-3
power supply, 35-18
PPG, 35-16
Sonicaid Meridian 800, 35-13
Sonicaid TEAM, 35-13
Toitu MT332, 35-14
Toitu MT333, 35-14
Toitu MT430, 35-15

R

RAID
configuration
Compaq ProLiant ML370 G2, 29-2
HP NetServer LC2000, 26-3
HP ProLiant ML350 G4, 31-2
HP ProLiant ML350 G4P, 32-2
HP ProLiant ML370 G3, 30-2
HP / Compaq Array Configuration Utility, 15-36
HP NetRaid Assistant, 15-35
RAID controller
Version
Compaq ProLiant ML370 G2, 29-3
Rebuild tool
external database, 14-8
internal database, 14-8
Recommended maintenance, see maintenance
Recovery, 15-7, 15-10, 15-11
client, 15-12
database recovery, 15-13
external database server, 15-11
linked systems, 15-17
local data recovery tool, 15-13
optical disk test tool, 15-22
optical disks, 15-23
server with archiving, 15-7
server with RAID array, 15-4
server without archiving, 15-10
Web terminal server, 15-11
Recovery process, 15-4
recovering client's hard disk, 15-12
recovering external server's hard disk, 15-11
recovering server's backup (secondary) hard disk, 15-8
reinstalling the server, 15-10, 15-11
Reinstalling
OB TraceVue, 16-1
server (recovery process), 15-10, 15-11
Remote
Fax, 6-47
IP address of servers for remote LAN clients, 17-24

Support, 6-46
Trace transmission, 6-46
Web access, 6-46
Remote Client
configure IP address of server, 16-8
installing and configuring, 6-16
Remote connectivity, 6-46
Remote LAN Client
limitations, 6-16
prerequisites for installing and configuring, 6-16
Remote support, 9-3
enabling, 9-4
modem setup, 9-4
terminal services client installation, 9-4
using terminal services client, 9-5
Renaming
client PC, 13-1
server PC, 13-1
Repair, 11-1
Optical Medium Changers, 11-2
Replaceable parts, see Parts, 11-3
Retrieve
connecting drive, 5-15
Retrieve disk
care for, 8-3
RFO tool, 15-28
checks before running, 15-29
error messages, 15-33
limitations, 15-28
log file, 15-32
merging archive index, 15-30
requirements, 15-28
retrieving A.01.64 data, 15-30
retrieving data A.02.10 or higher data, 15-30
using, 15-29
RS-232
cable specifications, 6-11
M1380-66501, 12-4
manual driver installation, 12-4
serial port server connectors, 6-11, 6-34
settings for Compaq Evo D510, 27-2
settings for HP Compaq D530, 28-2
settings for HP Kayak XA, 22-3
settings for HP Kayak XU, 23-3
settings for HP Vectra VL400, 24-2
settings for HP Vectra VL420, 25-2
testing ports using FMSpy, 12-4

S

Safety
cabling, 2-16
electrostatic handling precautions, 2-17
installation, 2-16
symbols, 2-1
Safety tests, 2-5, 5-28
enclosure leakage current - OE, 2-13
enclosure leakage current/normal condition, 2-10
enclosure leakage current/single fault condition, 2-10
PC in patient vicinity, 2-10
PC not in patient vicinity, 2-10
performance RS-232, 2-8
performance RS232, 2-9
performance serial port server, 2-9
performance software, 2-7
performance tests, 2-6
power on test, 2-6
procedures, 2-11
protective earth, 2-15
site preparation, 2-16
UPS, 2-9
visual inspection, 2-6
when to perform, 2-15
SATA configuration
HP Compaq dc7100, 33-4
HP Compaq dc7600, 34-4
SCSI
address
archive drive, 17-29
retrieve drive, 17-29
medium changers, 17-30
secondary hard disk for Kayak XA, 12-9
primary hard disk for Kayak XU, 12-9
secondary hard disk for Kayak XU, 12-9
BIOS
loading, 17-4
Compaq Evo D510, 27-5
Compaq ProLiant ML370 G2, 29-3
HP Compaq D530, 28-5
HP Kayak XA, 22-9
HP Kayak XU, 23-9
HP Netserver LC2000 PC, 26-5
HP Netserver LC2000 U3 PC, 26-5
HP Proliant ML350, 31-4
HP Proliant ML350 G4P, 32-4
HP ProLiant ML370 G3, 30-3
HP Vectra VL400, 24-4
HP Vectra VL420, 25-4
cable lengths
optical drives, 12-11
optical medium changers, 12-13
host adapter
M1380-66502, 12-7
M1381-66404, 12-7
Second network interface card, 17-20
Secondary hard disk
Compaq Evo D510, 12-8
HP Kayak XA, 12-9
HP Kayak XU, 12-9
HP Vectra VL 400, 12-8
HP Vectra VL 420, 12-8
IDE disk, 12-8
recovery after failure, 15-8
replacing, 12-8
SCSI disk, 12-9
upgrade installation, 12-8
Security, 3-1
macros, 6-52
Windows, 3-2
Send Note, 14-17
Serial port server, 6-22
configuration, 6-29
connecting, 6-25
device driver, 6-28
example installation, 6-22
host PC, 6-24
installation, 6-23
installation documentation
host PC, 6-39
port server, 6-37
network settings, 6-26
OB TraceVue configuration, 6-34
replacing, 6-36
Serial Port Server 5610, 6-31
Series 120, 35-8
Series 50 monitors, 6-3
Server

See internal server, 5-3
Service pack
OB TraceVue, 1-2
Office 2003, 6-52
Word 2003, 6-52
Setup
ADT interface, 16-5
ADT patient ID field, 16-7
advanced alerting, 16-5
auto login, 16-8
basic alerting, 16-5
change options screen, 16-5
change PC options, 16-5
configure IP addresses of servers for Remote Clients, 16-8
define system language, 16-7
drive settings, 16-6
external database, 16-6
external interface settings (for HL7), 16-7
finish, 16-9
found system screen, 16-3
installing OB TraceVue shell, 16-8
number of clients, 16-5
OB Tracevue software, 16-2
OBTV to OBTV link, 16-5
password for change options, 16-5
port screen, 16-6, 16-8
port settings, 16-6
remote support modem, 9-4
screens, 16-3
starting OB TraceVue software setup, 16-2
storage options, 16-5
welcome screen, 16-3
Shell
installing OB TraceVue shell, 16-9
Shipment status, 4-3
Slot assignment
Compaq Evo D510, 27-2
Compaq ProLiant ML370 G2, 29-1
HP Compaq D530, 28-2
HP Kayak XA, 22-2
HP Kayak XU, 23-2
HP Netserver LC2000 PC, 26-2
HP ProLiant ML350 G4, 31-1
HP ProLiant ML350 G4P, 32-1
HP ProLiant ML370 G3, 30-1
HP Vectra VL400 PC, 24-2
HP Vectra VL420 PC, 25-2
SNMP, 5-28
Soft-Server, 14-18
accessing support tools, 14-18
Software
components, 4-6
media defects, 11-3
reinstalling OB TraceVue, 16-1
replacing the Windows operating system media, 11-3
third party software, 4-6
Software upgrade, 19-1
from A.02.00, 19-3
from A.02.10, 19-4
from B.00.00, 19-4
from B.01.00 (NT 4), 19-4
from B.01.00 (Win 2000), 19-8
from C.00.00, 19-12
from C.01.00, 19-12
from C.01.01, 19-12
Software upgrades
templates, 19-24
Sonicaid Meridian 800
protocol converter, 35-13
Sonicaid TEAM
protocol converter, 35-13
Soundcard
adjusting volume, 12-3
loudspeaker, 12-3
muting a PC, 12-3
setting up, 5-20
settings for Compaq Evo D510, 27-2
settings for HP Compaq D530, 28-2
settings for HP Kayak XA, 22-3
settings for HP Kayak XU, 23-3
settings for HP Vectra VL400, 24-2
settings for HP Vectra VL420, 25-2
volume control, 12-3
Spare PC
server with RAID, 15-6
Special tools, 1-2
Specification
Network switch, 6-9
Specifications
Cables
100Base-FX, 6-11
10Base-T, 6-11
CAT-5, 6-12
RS-232, 6-11
Display (monitor), 4-5
LAN cables, 6-11
Memory requirements
internal server, 18-4
external server, 18-5
Web/Terminal server, 18-5
client, 18-6
Modems, 4-9
number of modems per PC, 4-9
number of modems per system, 4-9
Number of clients
Web/Terminal server, 18-5
PCs
supported PCs, 18-2
Compaq Evo D510, 27-1
Compaq ProLiant ML370 G2, 29-1
HP Compaq D530, 28-1
HP Compaq dc7100, 33-1
HP Compaq dc7600, 34-1
HP Kayak XU, 23-1
HP Netserver LC2000, 26-1
HP ProLiant ML350 G4, 31-1
HP ProLiant ML350 G4P, 32-1
HP ProLiant ML370 G3, 30-1
HP Vectra VL400, 24-1
HP Vectra VL420, 25-1
Serial port server connectors, 6-34
SPS
see Serial port server
Standalone PC
installation checklist, 5-4
Windows new installation, 17-6
Stocking
parts, 11-4
Storage
automatically configuring, 17-10
connecting drive, 5-14, 5-15
setup, 16-5
Support tools
accessing from the Soft-Server, 14-18
Supported PCs, 18-2
Switch
connecting a PC to a, 6-14
supported with OB TraceVue, 6-8
Sybase Central, 14-2
Symbols
earth terminal, 2-1
equipotential terminal, 2-1
international caution symbol, 2-1
safety, 2-1

System description, 1-1, 4-1
System limitations
  fetal monitors, 4-8
  modem, 4-9
  power, 4-8
System overview, 2-2
  centralized system, 2-3
  decentralized system, 2-2
system overview tool
  rebooting a client PC, 9-2
  rebooting a system, 9-2
  starting a client, 9-2
  starting a system, 9-2
  stopping a client, 9-2
  stopping a system, 9-2
System upgrade, 21-1

T
Tape Drive, 12-16
  installation, 12-16
  preparing, 5-30
  required components, 12-16
Telemetry, 6-1
Templates
  directory structure, 6-53
  installation procedure, 19-25
  new installation, 6-55
  prerequisites, 19-24
  revisions, 6-54
  updating Excel templates (prior to B.00.00), 19-26
  upgrade procedure, 19-25
Terminal services
  client, 9-4
  remote support, 9-3, 9-4
Terminator
  secondary hard disk drive, 12-10
Test and inspection matrix, 2-6
Third party software, 4-6
Time, 17-17
Toco
  FMSpy, 14-16
Toitu MT332
  protocol converter, 35-14
Toitu MT333
  protocol converter, 35-14
Toitu MT430
  protocol converter, 35-15
Tools
  Computer Management, 14-1
  database rebuild tool, 14-8
  Device manager, 14-1
  diagtools, 14-19
  FMSpy, 14-14
  from Softserver, 14-18
  GetLog, 14-20
  installation record (install.txt), 14-14
  internal database admin tool, 14-7
  LogFile Viewer, 14-12
  OB TraceVue tools, 14-7
  offline backup, 14-4
  RFO, merging databases, 15-30
  RFO, restoring the external database, 15-31
  RFO, restoring transfer states, 15-31
  RFO, retrieving data, 15-30
  Windows Control Panel, 14-1
  Windows disk management, 14-1
  Windows event viewer, 14-1
  Windows licensing, 14-1
  Windows performance monitor, 14-1
  Windows Services, 14-1
  Windows standard tools, 14-1
Touchscreen
  driver, 5-20
Troubleshooting, 7-1
  application, 7-7
  data acquisition, 7-6
  fetal monitor connections, 7-6
  hardware, 7-4
  network, 7-1
  storage, 7-7
  system setup, 7-1

U
Uninstall
  OB TraceVue, 16-10
Upgrade
  hardware, 20-1
    from A.01.64, 20-2
    from A.02.00, 20-2
    from A.02.10 or higher, 20-3
  software, 19-1
    from A.01.64, 19-3
    from A.02.00, 19-3
    from A.02.10, 19-4
    from B.00.00, 19-4
    from B.01.00 (NT 4), 19-4
    from B.01.00 (Win 2000), 19-8
    from C.00.00, 19-12
    from C.01.00, 19-12
    from C.01.01, 19-12
  System
    adding WEB client licenses, 21-5
    adding WEB/Terminal server PC, 21-5
    to archiving system, 21-2
    to archiving system (medium changer), 21-2
    to larger network, 21-4
    using optical disk drives, 4-5
UPS, 12-18
  battery replacement, 8-1
  client, 6-1
  connected to isolation transformer, 2-4
  connecting at the client, 5-16
  connecting at the server, 5-15
  in patient vicinity, 2-4
  performance tests, 2-9
  software
    disabling, 12-19
    installing, 17-28
    simple solution, 12-18
    smart solution, 12-18
User configuration record, see Configuration record

V
Verification
  CONFIG.TXT file, 10-1
  customer, 10-1
Virus protection, 8-4
VL400, see HP Vectra VL400
VL420, see HP Vectra VL420
Voltage selection switch, 5-13
Volume
  adjusting, 12-3
  soundcard, 12-3

W
Wall cabling, 4-7, 6-11

Warning label, 5-34
WEB access (modem), 6-46
  setting up WEB client, 6-46
  setting up WEB/Terminal server, 6-46
WEB client
  printing, 6-45
  starting, 6-46
WEB/Terminal Server
  Configuration, 17-13
WEB/Terminal server
  adding, 21-5
  adding client licenses, 21-5
  installation checklist, 5-7
  memory requirements, 18-5
  number of WEB clients, 18-5
  rebooting, 8-4
  recovery, 15-11
  Windows new installation, 17-6
Windows
  access rights, 3-3
  configuration, 17-10
    client, 17-14
    DHCP server, 17-15
    drive letters, 17-17
    external database server, 17-12
    Regional settings, 17-18
    server/standalone, 17-10
    Time zone, 17-17
    WEB/Terminal server, 17-13
  Device Manager, 14-1
  Device manager, 14-1
  Disk Management, 14-1
  Event viewer, 14-1
  license update, 21-4
  new installation, 17-6
  performance monitor, 14-1
  pre-installation checks, 17-3
  preliminary work (before installing), 17-3
  security, 3-2
  Services, 14-1
  users, 3-2
  when to install, 17-2
Word
  see Microsoft Word

X
XA, see HP Kayak XA
XU, see HP Kayak XU